

**James Walker**<sup>®</sup>

# Hydraulic sealing products — Size charts

Issue 28.1

- *Rod/gland & piston seals*
- *Wipers & scrapers*
- *Bearing strips*



High Performance Sealing Technology



## Hydraulic sealing products — Size charts

This document should be used in conjunction with the latest version of our **Hydraulic Sealing Guide**.

In the following pages we present our size charts for our most popular hydraulic sealing products:

- Chevron® (Shallex®) — rod/gland & piston seals
- Lionsele® LF — rod/gland & piston seals
- Lionsele® U1 — rod/gland & piston seals
- Twinset — rod/gland & piston seals
- Solosele® G — rod/gland & piston seals
- Lionsele® G — rod/gland seals
- Lionsele® U2 — rod/gland seals
- Lofilm® — rod/gland seals
- Lion® Expanding Packing — rod/gland seals
- Lofilm® HD — rod/gland seals
- Lionsele® P — piston seals
- Lionsele® SP — piston seals
- Lionsele® U3 — piston seals
- Solosele® S — piston seals
- Solosele® SW — piston seals
- Lionsele® W1 — wipers
- Lionsele® W2 — wipers
- Lionsele® W3 — wipers
- Wyclip® — wiper/scrapers
- Wiper Type L — wipers
- Lionsele® B1 — bearing strips
- Lionsele® B2 — bearing strips

If the size you require does not appear in these charts, please refer to the product's main entry in our **Hydraulic Sealing Guide**. This will give guidance as to its availability in non-chart sizes.

Where we have a suitable tool, your seal will be supplied on short delivery time without tooling charge. If we do not have the mould tool required, we can swiftly and economically manufacture one in-house. In such cases, a tooling charge may be applied. However, we make many new tools each week, and the one you need may be among them.

In addition, we are able to custom design seals and manufacture these to fit non-standard housings arrangements. So please contact our Technical Support Team, or your local James Walker office or official distributor, if the sealing product you want is not listed.

**Note:** We regularly revise these charts, so before undertaking design work or a purchasing procedure, please check with James Walker that the details for your selected product are the most up to date.



*We precision-mould large diameter seals in a single operation ...*



*... and smaller seals are manufactured with identical care and attention.*

Please refer to the latest edition of our **Hydraulic Sealing Guide** for all other information on our vast family of hydraulic-related products, including:

- Design details.
- Special features.
- Typical applications.
- Operating pressure, temperature range, and maximum surface speed.
- Materials of construction.
- Media capabilities.
- Housing details.
- Availability: split/ends, overall sizes, etc.

# Size charts index

Product	Chart Number	Suffix	Sealing position	Maximum pressure MPa	See page/s	
<b>Chevron® (Shallex®)</b>	JW 306	No suffix	Rod/Gland and Piston/Cylinder	42	4	
	JW 345	HNA	Rod/Gland and Piston/Cylinder		5	
		HSL			6	
		LNA			7	
	JW 430	HNA	Rod/Gland and Piston/Cylinder		8, 9	
		HSL			9, 10	
		LNA			11, 12	
		LSL			13, 14	
	JW 431	HNA	Rod/Gland and Piston/Cylinder		14, 15	
		HSL			16, 17	
		LNA			18, 19	
		LSL			20, 21	
	JW 835	No suffix	Piston/Cylinder		22	
JW 836	Rod/Gland		22			
JW 837	Rod/Gland		23			
<b>Lionsele® LF</b>	JW 320		Rod/Gland and Piston/Cylinder	40	24	
<b>Lionsele® U1</b>	JW 304		42	25		
<b>Twinset</b>	JW 440	NA	Rod/Gland	34	26, 27	
		PH	Piston/Cylinder		28, 29	
		SL	Rod/Gland		30, 31	
	JW 441	NA	Rod/Gland		32, 33	
		PH	Piston/Cylinder		34, 35	
		SL	Rod/Gland		36, 37	
<b>Solosele® G</b>	JW 301	No suffix	Rod/Gland and Piston/Cylinder	42	38, 39, 40	
<b>Lionsele® G</b>	JW 302		Rod/Gland	40	41	
<b>Lionsele® U2</b>	JW 305		Rod/Gland	42	42	
<b>Lofilm®</b>	JW 75		Rod/Gland	42	43	
	JW 300				43	
	JW 830				44, 45	
	JW 831				46, 47	
	JW 832				48	
	JW 833				48	
	JW 930				49, 50	
	JW 931				50, 51	
<b>Lion® Expanding</b>	No chart #			62	52	
<b>Lofilm® HD</b>				62	53	
<b>Lionsele® P</b>	JW 309	No suffix	Piston/Cylinder	40	54	
<b>Lionsele® SP</b>	JW 311			42	55, 56	
<b>Lionsele® U3</b>	JW 314			42	57	
<b>Solosele® S</b>	JW 312			42	58, 59	
<b>Solosele® SW</b>	JW 313			42	60	
<b>Lionsele® W1</b>	JW 315			Rod only (wipers)	Pressure rating not applicable	61
<b>Lionsele® W2</b>	JW 316					62
<b>Lionsele® W3</b>	JW 317					63
<b>Wyclip®</b>	JW 62					64
	JW 67					65
<b>Wiper Type L</b>	JW 524					66
	JW 525			67		
	JW 526			68		
<b>Lionsele® B1</b>	No chart #	Rod and piston (bearing strips)		69, 70		
<b>Lionsele® B2</b>				69, 70		

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 306

### Rod/gland & piston/cylinder sealing applications

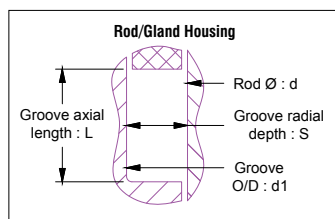
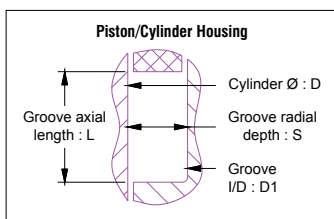
JW established metric (mm) size range for non-adjustable Piston & Rod Seal Housings based on the requirements of BS ISO 5597 Long (L3) axial length series housings.

# 1; Rod diameters and all other dimensions conform to BS ISO 5597 Tables 2, 4 and 7 for rod seals.

# 2; Cylinder diameters and all other dimensions conform to BS ISO 5597 Tables 2, 3 and 7 for piston seals.

Rod Ø ≤ 250mm: Acetal gland ring is standard.

Rod Ø > 250mm: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
6.00 #1	14.00	4.00	14.50	306-006014145	CH033019	CH001699
8.00 #1	16.00	4.00	14.50	306-008016145	CH033027	CH001702
10.00 #1	20.00	5.00	16.00	306-010020160	CH033035	CH00180X
12.00 #1	22.00	5.00	16.00	306-012022160	CH033043	CH001850
14.00 #1	24.00	5.00	16.00	306-014024160	CH033051	CH001907
15.00	25.00 #2	5.00	16.00	306-015025160	CH010000	CH003314
16.00 #1	26.00	5.00	16.00	306-016026160	CH03306X	CH001958
18.00 #1	28.00	5.00	16.00	306-018028160	CH033078	CH002008
20.00 #1	28.00	4.00	14.50	306-020028145	CH033086	CH002016
20.00 #1	30.00	5.00	16.00	306-020030160	CH033094	CH002024
22.00 #1	30.00	4.00	14.50	306-022030145	CH033108	CH002032
22.00 #1	32.00 #2	5.00	16.00	306-022032160	CH034007	CH002040
25.00 #1	33.00	4.00	14.50	306-025033145	CH034015	CH002059
25.00 #1	35.00	5.00	16.00	306-025035160	CH034023	CH002067
28.00 #1	38.00	5.00	16.00	306-028038160	CH034031	CH002075
28.00 #1	43.00	7.50	25.00	306-028043250	CH03404X	CH002083
30.00	40.00 #2	5.00	16.00	306-030040160	CH020006	CH050002
32.00 #1	42.00	5.00	16.00	306-032042160	CH034058	CH002091
32.00 #1	47.00	7.50	25.00	306-032047250	CH034066	CH002105
35.00	50.00 #2	7.50	25.00	306-035050250	CH030001	CH000803
36.00 #1	46.00	5.00	16.00	306-036046160	CH034074	CH002121
36.00 #1	51.00	7.50	25.00	306-036051250	CH034082	CH002148
40.00 #1	50.00 #2	5.00	16.00	306-040050160	CH034090	CH002156
40.00 #1	55.00	7.50	25.00	306-040055250	CH034104	CH002164
45.00 #1	55.00	5.00	16.00	306-045055160	CH034201	CH002199
45.00 #1	60.00	7.50	25.00	306-045060250	CH034309	CH002202
48.00	63.00 #2	7.50	25.00	306-048063250	CH031024	CH001001

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
50.00 #1	60.00	5.00	16.00	306-050060160	CH034406	CH002210
50.00 #1	65.00	7.50	25.00	306-050065250	CH034503	CH002229
53.00	63.00 #2	5.00	16.00	306-053063160	CH031008	CH000900
56.00 #1	71.00	7.50	25.00	306-056071250	CH034600	CH002237
56.00 #1	76.00	10.00	32.00	306-056076320	CH034708	CH002245
60.00	80.00 #2	10.00	32.00	306-060080320	CH031040	CH001303
63.00 #1	78.00	7.50	25.00	306-063078250	CH034805	CH002253
63.00 #1	83.00	10.00	32.00	306-063083320	CH034902	CH002261
65.00	80.00 #2	7.50	25.00	306-065080250	CH031032	CH001109
70.00 #1	85.00	7.50	25.00	306-070085250	CH035003	CH002296
70.00 #1	90.00	10.00	32.00	306-070090320	CH035100	CH00230X
80.00 #1	95.00	7.50	25.00	306-080095250	CH035208	CH002350
80.00 #1	100.00 #2	10.00	32.00	306-080100320	CH035305	CH002407
85.00	100.00 #2	7.50	25.00	306-085100250	CH031059	CH001400
90.00 #1	105.00	7.50	25.00	306-090105250	CH035402	CH002458
90.00 #1	110.00	10.00	32.00	306-090110320	CH03550X	CH002474
100.00 #1	120.00	10.00	32.00	306-100120320	CH035607	CH002490
100.00 #1	125.00 #2	12.50	40.00	306-100125400	CH035704	CH002504
105.00	125.00 #2	10.00	32.00	306-105125320	CH031067	CH001508
110.00 #1	130.00	10.00	32.00	306-110130320	CH035801	CH002555
110.00 #1	135.00	12.50	40.00	306-110135400	CH035909	CH002598
125.00 #1	145.00	10.00	32.00	306-125145320	CH03600X	CH002601
125.00 #1	150.00	12.50	40.00	306-125150400	CH036107	CH002652
135.00	160.00 #2	12.50	40.00	306-135160400	CH031075	CH001605
140.00 #1	160.00 #2	10.00	32.00	306-140160320	CH036204	CH002709
140.00 #1	165.00	12.50	40.00	306-140165400	CH036301	CH00275X
160.00 #1	185.00	12.50	40.00	306-160185400	CH036409	CH002806
160.00 #1	190.00	15.00	50.00	306-160190500	CH036506	CH002903
170.00	200.00 #2	15.00	50.00	306-170200500	CH031091	CH001621
175.00	200.00 #2	12.50	40.00	306-175200400	CH031083	CH001613
180.00 #1	205.00	12.50	40.00	306-180205400	CH036603	CH002954
180.00 #1	210.00	15.00	50.00	306-180210500	CH036700	CH002962
200.00 #1	225.00	12.50	40.00	306-200225400	CH036808	CH003004
200.00 #1	230.00	15.00	50.00	306-200230500	CH036905	CH003012
220.00 #1	250.00 #2	15.00	50.00	306-220250500	CH037006	CH003055
225.00	250.00 #2	12.50	40.00	306-225250400	CH031105	CH00163X
250.00 #1	280.00	15.00	50.00	306-250280500	CH037103	CH003101
280.00 #1	310.00	15.00	50.00	306-280310500	CH037200	CH003209
290.00	320.00 #2	15.00	50.00	306-290320500	CH012003	CH001656
320.00 #1	360.00	20.00	63.00	306-320360630	CH037308	CH003217
360.00 #1	400.00 #2	20.00	63.00	306-360400630	CH032004	CH001664
460.00	500.00 #2	20.00	63.00	306-460500630	CH033000	CH001672

(Chevron® is known as Shallex® in some regions)

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 345 HNA

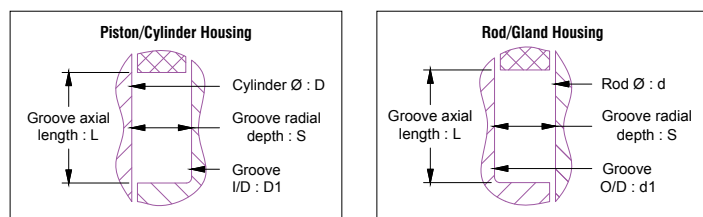
### Rod/gland & piston/cylinder sealing applications

JW established metric (mm) size range for non-adjustable Piston & Rod Seal Housings.

Housings have same radial depth but longer axial length dimensions in comparison to JW Chart 345 LNA.

Rod Ø ≤ 250mm: Acetal gland ring is standard.

Rod Ø > 250mm: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
6.00	16.00	5.00	18.50	345-HNA-1	CH03001X	CH066014
8.00	18.00	5.00	18.50	345-HNA-2	CH030028	CH066022
10.00	20.00	5.00	18.50	345-HNA-3	CH030036	CH066030
12.00	22.00	5.00	18.50	345-HNA-4	CH030044	CH066049
14.00	24.00	5.00	18.50	345-HNA-5	CH030052	CH066057
15.00	25.00	5.00	18.50	345-HNA-6	CH030060	CH066065
16.00	26.00	5.00	18.50	345-HNA-7	CH030079	CH066073
18.00	28.00	5.00	18.50	345-HNA-8	CH030087	CH066081
19.00	34.00	7.50	27.50	345-HNA-11	CH030117	CH066111
20.00	30.00	5.00	18.50	345-HNA-9	CH030095	CH06609X
20.00	35.00	7.50	27.50	345-HNA-12	CH030125	CH06612X
22.00	32.00	5.00	18.50	345-HNA-10	CH030109	CH066103
22.00	37.00	7.50	27.50	345-HNA-13	CH030133	CH066138
23.00	38.00	7.50	27.50	345-HNA-14	CH030141	CH066146
25.00	40.00	7.50	27.50	345-HNA-15	CH03015X	CH066154
27.00	42.00	7.50	27.50	345-HNA-16	CH030168	CH066162
28.00	43.00	7.50	27.50	345-HNA-17	CH030176	CH066170
30.00	45.00	7.50	27.50	345-HNA-18	CH030184	CH066189
32.00	47.00	7.50	27.50	345-HNA-19	CH030192	CH066197
35.00	50.00	7.50	27.50	345-HNA-20	CH030206	CH066200
36.00	51.00	7.50	27.50	345-HNA-21	CH030214	CH066219
38.00	53.00	7.50	27.50	345-HNA-22	CH030222	CH066227
40.00	55.00	7.50	27.50	345-HNA-23	CH030230	CH066235
41.00	56.00	7.50	27.50	345-HNA-24	CH030249	CH066243
42.00	57.00	7.50	27.50	345-HNA-25	CH030257	CH066251
45.00	60.00	7.50	27.50	345-HNA-26	CH030265	CH06626X
48.00	63.00	7.50	27.50	345-HNA-27	CH030273	CH066278
50.00	65.00	7.50	27.50	345-HNA-28	CH030281	CH066286
50.00	70.00	10.00	37.00	345-HNA-29	CH03029X	CH066294
53.00	73.00	10.00	37.00	345-HNA-30	CH030303	CH066308
55.00	75.00	10.00	37.00	345-HNA-31	CH030311	CH066316
56.00	76.00	10.00	37.00	345-HNA-32	CH03032X	CH066324

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
60.00	80.00	10.00	37.00	345-HNA-33	CH030338	CH066332
63.00	83.00	10.00	37.00	345-HNA-34	CH030346	CH066340
65.00	85.00	10.00	37.00	345-HNA-35	CH030354	CH066359
70.00	90.00	10.00	37.00	345-HNA-36	CH030362	CH066367
75.00	95.00	10.00	37.00	345-HNA-37	CH030370	CH066375
80.00	100.00	10.00	37.00	345-HNA-38	CH030389	CH066383
85.00	105.00	10.00	37.00	345-HNA-39	CH030397	CH066391
90.00	110.00	10.00	37.00	345-HNA-40	CH030400	CH066405
100.00	120.00	10.00	37.00	345-HNA-41	CH030419	CH066413
100.00	125.00	12.50	46.00	345-HNA-42	CH030427	CH066421
105.00	130.00	12.50	46.00	345-HNA-43	CH030435	CH06643X
110.00	135.00	12.50	46.00	345-HNA-44	CH030443	CH066448
115.00	140.00	12.50	46.00	345-HNA-45	CH030451	CH066456
120.00	145.00	12.50	46.00	345-HNA-46	CH03046X	CH066464
125.00	150.00	12.50	46.00	345-HNA-47	CH030478	CH066472
130.00	155.00	12.50	46.00	345-HNA-48	CH030486	CH066480
135.00	160.00	12.50	46.00	345-HNA-49	CH030494	CH066499
140.00	165.00	12.50	46.00	345-HNA-50	CH030508	CH066502
145.00	170.00	12.50	46.00	345-HNA-51	CH030516	CH066510
150.00	175.00	12.50	46.00	345-HNA-52	CH030524	CH066529
150.00	180.00	15.00	55.50	345-HNA-53	CH030532	CH066537
160.00	190.00	15.00	55.50	345-HNA-54	CH030540	CH066545
170.00	200.00	15.00	55.50	345-HNA-55	CH030559	CH066553
180.00	210.00	15.00	55.50	345-HNA-56	CH030567	CH066561
190.00	220.00	15.00	55.50	345-HNA-57	CH030575	CH06657X
200.00	230.00	15.00	55.50	345-HNA-58	CH030583	CH066588
210.00	240.00	15.00	55.50	345-HNA-59	CH030591	CH066596
220.00	250.00	15.00	55.50	345-HNA-60	CH030605	CH06660X
230.00	260.00	15.00	55.50	345-HNA-61	CH030613	CH066618
240.00	270.00	15.00	55.50	345-HNA-62	CH030621	CH066626
250.00	280.00	15.00	55.50	345-HNA-63	CH03063X	CH066634
260.00	290.00	15.00	55.50	345-HNA-64	CH030648	CH066642
270.00	300.00	15.00	55.50	345-HNA-65	CH030656	CH066650
280.00	310.00	15.00	55.50	345-HNA-66	CH030664	CH066669
290.00	320.00	15.00	55.50	345-HNA-67	CH030672	CH066677
300.00	330.00	15.00	55.50	345-HNA-68	CH030680	CH066685
320.00	360.00	20.00	74.00	345-HNA-69	CH030699	CH066693
360.00	400.00	20.00	74.00	345-HNA-70	CH030702	CH066707
380.00	420.00	20.00	74.00	345-HNA-71	CH030710	CH066715
400.00	440.00	20.00	74.00	345-HNA-72	CH030729	CH066723
420.00	460.00	20.00	74.00	345-HNA-73	CH030737	CH066731
440.00	480.00	20.00	74.00	345-HNA-74	CH030745	CH06674X
460.00	500.00	20.00	74.00	345-HNA-75	CH030753	CH066758
500.00	540.00	20.00	74.00	345-HNA-76	CH030761	CH066766

(Chevron® is known as Shallex® in some regions)

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 345 HSL

### Rod/gland & piston/cylinder sealing applications

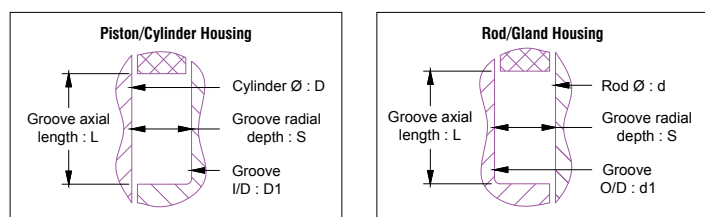
Spring-loaded header seal sets designed to allow for a degree of compensation for wear and loss of as-moulded sealing ring interference

JW established metric (mm) size range for longer non-adjustable Piston and Rod Seal Housings.

Housings have same radial depth but longer axial length dimensions in comparison to JW Chart 345 HNA

Rod Ø ≤ 250mm: Acetal gland ring is standard.

Rod Ø > 250mm: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
19.00	34.00	7.50	27.50	345-HSL-11	CH031113	CH067118
20.00	35.00	7.50	27.50	345-HSL-12	CH031121	CH067126
22.00	37.00	7.50	27.50	345-HSL-13	CH03113X	CH067134
23.00	38.00	7.50	27.50	345-HSL-14	CH031148	CH067142
25.00	40.00	7.50	27.50	345-HSL-15	CH031156	CH067150
27.00	42.00	7.50	27.50	345-HSL-16	CH031164	CH067169
28.00	43.00	7.50	27.50	345-HSL-17	CH031172	CH067177
30.00	45.00	7.50	27.50	345-HSL-18	CH031180	CH067185
32.00	47.00	7.50	27.50	345-HSL-19	CH031199	CH067193
35.00	50.00	7.50	27.50	345-HSL-20	CH031202	CH067207
36.00	51.00	7.50	27.50	345-HSL-21	CH031210	CH067215
38.00	53.00	7.50	27.50	345-HSL-22	CH031229	CH067223
40.00	55.00	7.50	27.50	345-HSL-23	CH031237	CH067231
41.00	56.00	7.50	27.50	345-HSL-24	CH031245	CH06724X
42.00	57.00	7.50	27.50	345-HSL-25	CH031253	CH067258
45.00	60.00	7.50	27.50	345-HSL-26	CH031261	CH067266
48.00	63.00	7.50	27.50	345-HSL-27	CH03127X	CH067274
50.00	65.00	7.50	27.50	345-HSL-28	CH031288	CH067282
50.00	70.00	10.00	37.00	345-HSL-29	CH031296	CH067290
53.00	73.00	10.00	37.00	345-HSL-30	CH03130X	CH067304
55.00	75.00	10.00	37.00	345-HSL-31	CH031318	CH067312
56.00	76.00	10.00	37.00	345-HSL-32	CH031326	CH067320
60.00	80.00	10.00	37.00	345-HSL-33	CH031334	CH067339
63.00	83.00	10.00	37.00	345-HSL-34	CH031342	CH067347
65.00	85.00	10.00	37.00	345-HSL-35	CH031350	CH067355
70.00	90.00	10.00	37.00	345-HSL-36	CH031369	CH067363
75.00	95.00	10.00	37.00	345-HSL-37	CH031377	CH067371

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
80.00	100.00	10.00	37.00	345-HSL-38	CH031385	CH06738X
85.00	105.00	10.00	37.00	345-HSL-39	CH031393	CH067398
90.00	110.00	10.00	37.00	345-HSL-40	CH031407	CH067401
100.00	120.00	10.00	37.00	345-HSL-41	CH031415	CH06741X
100.00	125.00	12.50	46.00	345-HSL-42	CH031423	CH067428
105.00	130.00	12.50	46.00	345-HSL-43	CH031431	CH067436
110.00	135.00	12.50	46.00	345-HSL-44	CH03144X	CH067444
115.00	140.00	12.50	46.00	345-HSL-45	CH031458	CH067452
120.00	145.00	12.50	46.00	345-HSL-46	CH031466	CH067460
125.00	150.00	12.50	46.00	345-HSL-47	CH031474	CH067479
130.00	155.00	12.50	46.00	345-HSL-48	CH031482	CH067487
135.00	160.00	12.50	46.00	345-HSL-49	CH031490	CH067495
140.00	165.00	12.50	46.00	345-HSL-50	CH031504	CH067509
145.00	170.00	12.50	46.00	345-HSL-51	CH031512	CH067517
150.00	175.00	12.50	46.00	345-HSL-52	CH031520	CH067525
150.00	180.00	15.00	55.50	345-HSL-53	CH031539	CH067533
160.00	190.00	15.00	55.50	345-HSL-54	CH031547	CH067541
170.00	200.00	15.00	55.50	345-HSL-55	CH031555	CH06755X
180.00	210.00	15.00	55.50	345-HSL-56	CH031563	CH067568
190.00	220.00	15.00	55.50	345-HSL-57	CH031571	CH067576
200.00	230.00	15.00	55.50	345-HSL-58	CH03158X	CH067584
210.00	240.00	15.00	55.50	345-HSL-59	CH031598	CH067592
220.00	250.00	15.00	55.50	345-HSL-60	CH031601	CH067606
230.00	260.00	15.00	55.50	345-HSL-61	CH03161X	CH067614
240.00	270.00	15.00	55.50	345-HSL-62	CH031628	CH067622
250.00	280.00	15.00	55.50	345-HSL-63	CH031636	CH067630
260.00	290.00	15.00	55.50	345-HSL-64	CH031644	CH067649
270.00	300.00	15.00	55.50	345-HSL-65	CH031652	CH067657
280.00	310.00	15.00	55.50	345-HSL-66	CH031660	CH067665
290.00	320.00	15.00	55.50	345-HSL-67	CH031679	CH067673
300.00	330.00	15.00	55.50	345-HSL-68	CH031687	CH067681
320.00	360.00	20.00	74.00	345-HSL-69	CH031695	CH06769X
360.00	400.00	20.00	74.00	345-HSL-70	CH031709	CH067703
380.00	420.00	20.00	74.00	345-HSL-71	CH031717	CH067711
400.00	440.00	20.00	74.00	345-HSL-72	CH031725	CH06772X
420.00	460.00	20.00	74.00	345-HSL-73	CH031733	CH067738
440.00	480.00	20.00	74.00	345-HSL-74	CH031741	CH067746
460.00	500.00	20.00	74.00	345-HSL-75	CH03175X	CH067754
500.00	540.00	20.00	74.00	345-HSL-76	CH031768	CH067762

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# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 345 LNA

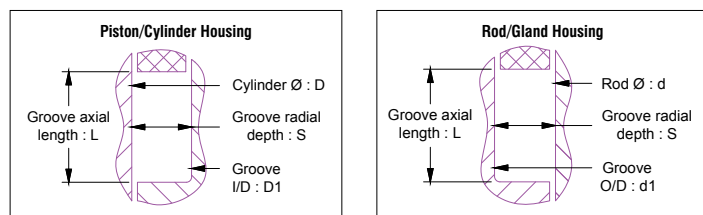
### Rod/gland & piston/cylinder sealing applications

JW established metric (mm) size range for non-adjustable Piston and Rod Seal Housings.

Housings have wider radial depth and longer axial length dimensions in comparison to JW Chart 306.

Rod Ø ≤ 250mm: Acetal gland ring is standard.

Rod Ø > 250mm: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
6.00	16.00	5.00	16.00	345-LNA-1	CH032012	CH068017
8.00	18.00	5.00	16.00	345-LNA-2	CH032020	CH068025
19.00	34.00	7.50	24.00	345-LNA-11	CH03211X	CH068114
20.00	35.00	7.50	24.00	345-LNA-12	CH032128	CH068122
22.00	37.00	7.50	24.00	345-LNA-13	CH032136	CH068130
23.00	38.00	7.50	24.00	345-LNA-14	CH032144	CH068149
25.00	40.00	7.50	24.00	345-LNA-15	CH032152	CH068157
27.00	42.00	7.50	24.00	345-LNA-16	CH032160	CH068165
28.00	43.00	7.50	24.00	345-LNA-17	CH032179	CH068173
30.00	45.00	7.50	24.00	345-LNA-18	CH032187	CH068181
32.00	47.00	7.50	24.00	345-LNA-19	CH032195	CH06819X
35.00	50.00	7.50	24.00	345-LNA-20	CH032209	CH068203
36.00	51.00	7.50	24.00	345-LNA-21	CH032217	CH068211
38.00	53.00	7.50	24.00	345-LNA-22	CH032225	CH06822X
40.00	55.00	7.50	24.00	345-LNA-23	CH032233	CH068238
41.00	56.00	7.50	24.00	345-LNA-24	CH032241	CH068246
42.00	57.00	7.50	24.00	345-LNA-25	CH03225X	CH068254
45.00	60.00	7.50	24.00	345-LNA-26	CH032268	CH068262
48.00	63.00	7.50	24.00	345-LNA-27	CH032276	CH068270
50.00	65.00	7.50	24.00	345-LNA-28	CH032284	CH068289
50.00	70.00	10.00	32.00	345-LNA-29	CH032292	CH068297
53.00	73.00	10.00	32.00	345-LNA-30	CH032306	CH068300
55.00	75.00	10.00	32.00	345-LNA-31	CH032314	CH068319
65.00	85.00	10.00	32.00	345-LNA-35	CH032357	CH068351
75.00	95.00	10.00	32.00	345-LNA-37	CH032373	CH068378
85.00	105.00	10.00	32.00	345-LNA-39	CH03239X	CH068394
105.00	130.00	12.50	40.00	345-LNA-43	CH032438	CH068432
115.00	140.00	12.50	40.00	345-LNA-45	CH032454	CH068459
120.00	145.00	12.50	40.00	345-LNA-46	CH032462	CH068467

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
130.00	155.00	12.50	40.00	345-LNA-48	CH032489	CH068483
145.00	170.00	12.50	40.00	345-LNA-51	CH032519	CH068513
150.00	175.00	12.50	40.00	345-LNA-52	CH032527	CH068521
150.00	180.00	15.00	48.00	345-LNA-53	CH032535	CH06853X
160.00	190.00	15.00	48.00	345-LNA-54	CH032543	CH068548
170.00	200.00	15.00	48.00	345-LNA-55	CH032551	CH068556
180.00	210.00	15.00	48.00	345-LNA-56	CH03256X	CH068564
190.00	220.00	15.00	48.00	345-LNA-57	CH032578	CH068572
200.00	230.00	15.00	48.00	345-LNA-58	CH032586	CH068580
210.00	240.00	15.00	48.00	345-LNA-59	CH032594	CH068599
220.00	250.00	15.00	48.00	345-LNA-60	CH032608	CH068602
230.00	260.00	15.00	48.00	345-LNA-61	CH032616	CH068610
240.00	270.00	15.00	48.00	345-LNA-62	CH032624	CH068629
250.00	280.00	15.00	48.00	345-LNA-63	CH032632	CH068637
260.00	290.00	15.00	48.00	345-LNA-64	CH032640	CH068645
270.00	300.00	15.00	48.00	345-LNA-65	CH032659	CH068653
280.00	310.00	15.00	48.00	345-LNA-66	CH032667	CH068661
290.00	320.00	15.00	48.00	345-LNA-67	CH032675	CH06867X
300.00	330.00	15.00	48.00	345-LNA-68	CH032683	CH068688
320.00	360.00	20.00	64.00	345-LNA-69	CH032691	CH068696
360.00	400.00	20.00	64.00	345-LNA-70	CH032705	CH06870X
380.00	420.00	20.00	64.00	345-LNA-71	CH032713	CH068718
400.00	440.00	20.00	64.00	345-LNA-72	CH032721	CH068726
420.00	460.00	20.00	64.00	345-LNA-73	CH03273X	CH068734
440.00	480.00	20.00	64.00	345-LNA-74	CH032748	CH068742
460.00	500.00	20.00	64.00	345-LNA-75	CH032756	CH068750
500.00	540.00	20.00	64.00	345-LNA-76	CH032764	CH068769

(Chevron® is known as Shallex® in some regions)

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 430 HNA (inch sizes)

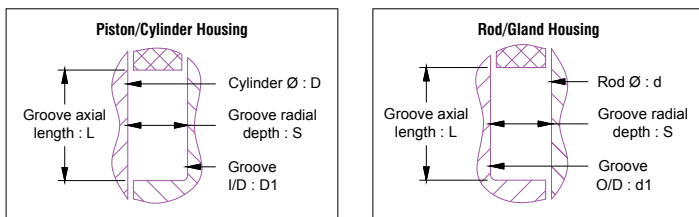
### Rod/gland & piston/cylinder sealing applications

Original JW established inch (fraction) size range for non-adjustable Piston and Rod Seal Housings.

Designed to suit longer axial length housings in comparison to the JW 430 LNA range of seals.

Rod Ø ≤ 9 3/4 in: Acetal gland ring is standard.

Rod Ø > 9 3/4 in: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
5/16	11/16	3/16	9/16	430-HNA-1	CH070003
3/8	3/4	3/16	9/16	430-HNA-2	CH070011
7/16	13/16	3/16	9/16	430-HNA-3	CH07002X
1/2	7/8	3/16	9/16	430-HNA-4	CH070038
9/16	15/16	3/16	9/16	430-HNA-5	CH070046
5/8	1	3/16	9/16	430-HNA-6	CH070054
11/16	1 1/16	3/16	9/16	430-HNA-7	CH070062
5/8	1 1/8	1/4	7/8	430-HNA-8	CH070070
11/16	1 3/16	1/4	7/8	430-HNA-9	CH070089
3/4	1 1/4	1/4	7/8	430-HNA-10	CH070097
13/16	1 5/16	1/4	7/8	430-HNA-11	CH070100
7/8	1 3/8	1/4	7/8	430-HNA-12	CH070119
15/16	1 7/16	1/4	7/8	430-HNA-13	CH070127
1	1 1/2	1/4	7/8	430-HNA-14	CH070135
15/16	1 9/16	5/16	1 5/32	430-HNA-15	CH070143
1	1 5/8	5/16	1 5/32	430-HNA-16	CH070151
1 1/16	1 11/16	5/16	1 5/32	430-HNA-17	CH07016X
1 1/8	1 3/4	5/16	1 5/32	430-HNA-18	CH070178
1 3/16	1 13/16	5/16	1 5/32	430-HNA-19	CH070186
1 1/4	1 7/8	5/16	1 5/32	430-HNA-20	CH070194
1 5/16	1 15/16	5/16	1 5/32	430-HNA-21	CH070208
1 3/8	2	5/16	1 5/32	430-HNA-22	CH070216
1 7/16	2 1/16	5/16	1 5/32	430-HNA-23	CH070224
1 1/2	2 1/8	5/16	1 5/32	430-HNA-24	CH070232
1 9/16	2 3/16	5/16	1 5/32	430-HNA-25	CH070240
1 5/8	2 1/4	5/16	1 5/32	430-HNA-26	CH070259
1 11/16	2 5/16	5/16	1 5/32	430-HNA-27	CH070267
1 3/4	2 3/8	5/16	1 5/32	430-HNA-28	CH070275
1 13/16	2 7/16	5/16	1 5/32	430-HNA-29	CH070283
1 7/8	2 1/2	5/16	1 5/32	430-HNA-30	CH070291
1 15/16	2 9/16	5/16	1 5/32	430-HNA-31	CH070305

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
2	2 5/8	5/16	1 5/32	430-HNA-32	CH070313
2	2 3/4	3/8	1 7/16	430-HNA-33	CH070321
2 1/8	2 7/8	3/8	1 7/16	430-HNA-34	CH07033X
2 1/4	3	3/8	1 7/16	430-HNA-35	CH070348
2 3/8	3 1/8	3/8	1 7/16	430-HNA-36	CH070356
2 1/2	3 1/4	3/8	1 7/16	430-HNA-37	CH070364
2 5/8	3 3/8	3/8	1 7/16	430-HNA-38	CH070372
2 3/4	3 1/2	3/8	1 7/16	430-HNA-39	CH070380
2 7/8	3 5/8	3/8	1 7/16	430-HNA-40	CH070399
3	3 3/4	3/8	1 7/16	430-HNA-41	CH070402
3 1/8	3 7/8	3/8	1 7/16	430-HNA-42	CH070410
3 1/4	4	3/8	1 7/16	430-HNA-43	CH070429
3 3/8	4 1/8	3/8	1 7/16	430-HNA-44	CH070437
3 1/2	4 1/4	3/8	1 7/16	430-HNA-45	CH070445
3 3/8	4 3/8	1/2	2	430-HNA-46	CH070453
3 1/2	4 1/2	1/2	2	430-HNA-47	CH070461
3 5/8	4 5/8	1/2	2	430-HNA-48	CH07047X
3 3/4	4 3/4	1/2	2	430-HNA-49	CH070488
3 7/8	4 7/8	1/2	2	430-HNA-50	CH070496
4	5	1/2	2	430-HNA-51	CH07050X
4 1/8	5 1/8	1/2	2	430-HNA-52	CH070518
4 1/4	5 1/4	1/2	2	430-HNA-53	CH070526
4 3/8	5 3/8	1/2	2	430-HNA-54	CH070534
4 1/2	5 1/2	1/2	2	430-HNA-55	CH070542
4 5/8	5 5/8	1/2	2	430-HNA-56	CH070550
4 3/4	5 3/4	1/2	2	430-HNA-57	CH070569
4 7/8	5 7/8	1/2	2	430-HNA-58	CH070577
5	6	1/2	2	430-HNA-59	CH070585
5 1/8	6 1/8	1/2	2	430-HNA-60	CH070593
5 1/4	6 1/4	1/2	2	430-HNA-61	CH070607
5 3/8	6 3/8	1/2	2	430-HNA-62	CH070615
5 1/2	6 1/2	1/2	2	430-HNA-63	CH070623
5 5/8	6 5/8	1/2	2	430-HNA-64	CH070631
5 3/4	6 3/4	1/2	2	430-HNA-65	CH07064X
5 7/8	6 7/8	1/2	2	430-HNA-66	CH070658
6	7	1/2	2	430-HNA-67	CH070666
6	7 1/4	5/8	2 5/16	430-HNA-68	CH070674
6 1/4	7 1/2	5/8	2 5/16	430-HNA-69	CH070682
6 1/2	7 3/4	5/8	2 5/16	430-HNA-70	CH070690
6 3/4	8	5/8	2 5/16	430-HNA-71	CH070704
7	8 1/4	5/8	2 5/16	430-HNA-72	CH070712
7 1/4	8 1/2	5/8	2 5/16	430-HNA-73	CH070720
7 1/2	8 3/4	5/8	2 5/16	430-HNA-74	CH070739
7 3/4	9	5/8	2 5/16	430-HNA-75	CH070747

Continued...



# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 430 HNA (inch sizes) continued

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
8	9 1/4	5/8	2 5/16	430-HNA-76	CH070755
8 1/4	9 1/2	5/8	2 5/16	430-HNA-77	CH070763
8 1/2	9 3/4	5/8	2 5/16	430-HNA-78	CH070771
8 3/4	10	5/8	2 5/16	430-HNA-79	CH07078X
9	10 1/4	5/8	2 5/16	430-HNA-80	CH070798
9 1/4	10 1/2	5/8	2 5/16	430-HNA-81	CH070801
9 1/2	10 3/4	5/8	2 5/16	430-HNA-82	CH07081X
9 3/4	11	5/8	2 5/16	430-HNA-83	CH070828
10	11 1/4	5/8	2 5/16	430-HNA-84	CH070836
10 1/4	11 1/2	5/8	2 5/16	430-HNA-85	CH070844
10 1/2	11 3/4	5/8	2 5/16	430-HNA-86	CH070852
10 3/4	12	5/8	2 5/16	430-HNA-87	CH070860
11	12 1/4	5/8	2 5/16	430-HNA-88	CH070879
11 1/4	12 1/2	5/8	2 5/16	430-HNA-89	CH070887
11 4/8	12 3/4	5/8	2 5/16	430-HNA-90	CH070895
11 3/4	13	5/8	2 5/16	430-HNA-91	CH070909
12	13 1/4	5/8	2 5/16	430-HNA-92	CH070917
12 1/4	13 1/2	5/8	2 5/16	430-HNA-93	CH070925
12 1/2	13 3/4	5/8	2 5/16	430-HNA-94	CH070933
12 3/4	14	5/8	2 5/16	430-HNA-95	CH070941
13	14 1/4	5/8	2 5/16	430-HNA-96	CH07095X
13 1/4	14 1/2	5/8	2 5/16	430-HNA-97	CH070968
13 1/2	14 3/4	5/8	2 5/16	430-HNA-98	CH070976
13 3/4	15	5/8	2 5/16	430-HNA-99	CH070984
14	15 1/4	5/8	2 5/16	430-HNA-100	CH070992
14 1/4	15 1/2	5/8	2 5/16	430-HNA-101	CH07100X
14 1/2	15 3/4	5/8	2 5/16	430-HNA-102	CH071018
14 3/4	16	5/8	2 5/16	430-HNA-103	CH071026
15	16 1/4	5/8	2 5/16	430-HNA-104	CH071034
15 1/4	16 1/2	5/8	2 5/16	430-HNA-105	CH071042
15 1/2	16 3/4	5/8	2 5/16	430-HNA-106	CH071050
15 3/4	17	5/8	2 5/16	430-HNA-107	CH071069
16	17 1/2	5/8	2 5/16	430-HNA-108	CH071077
16	17 1/2	3/4	3 1/4	430-HNA-109	CH071085
16 1/2	18	3/4	3 1/4	430-HNA-110	CH071093
17	18 1/2	3/4	3 1/4	430-HNA-111	CH071107
17 1/2	19	3/4	3 1/4	430-HNA-112	CH071115
18	19 1/2	3/4	3 1/4	430-HNA-113	CH071123
18 1/2	20	3/4	3 1/4	430-HNA-114	CH071131
19	20 1/2	3/4	3 1/4	430-HNA-115	CH07114X
19 1/2	21	3/4	3 1/4	430-HNA-116	CH071158
20	21 1/2	3/4	3 1/4	430-HNA-117	CH071166

(Chevron® is known as Shallex® in some regions)

## Chevron® — JW Chart 430 HSL (inch sizes)

### Rod/gland & piston/cylinder sealing applications

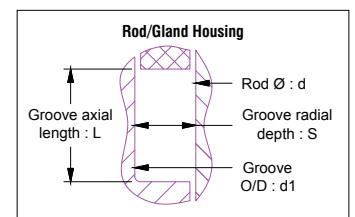
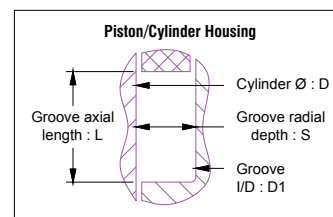
Spring-loaded header seal sets designed to allow for a degree of compensation for wear and loss of as-moulded sealing ring interference.

JW established inch (fraction) size range for longer non-adjustable Piston and Rod Seal Housings.

Housings have same radial depth but longer axial length dimensions in comparison to JW Chart 430 HNA.

Rod Ø ≤ 9 3/4 in: Acetal gland ring is standard.

Rod Ø > 9 3/4 in: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
5/8	1 1/8	1/4	7/8	430-HSL-8	CH042085	CH072014
11/16	1 3/16	1/4	7/8	430-HSL-9	CH042093	CH072022
3/4	1 1/4	1/4	7/8	430-HSL-10	CH042107	CH072030
13/16	1 5/16	1/4	7/8	430-HSL-11	CH042115	CH072049
7/8	1 3/8	1/4	7/8	430-HSL-12	CH042123	CH072057
15/16	1 7/16	1/4	7/8	430-HSL-13	CH042131	CH072065
1	1 1/2	1/4	7/8	430-HSL-14	CH04214X	CH072073
15/16	1 9/16	5/16	1 3/16	430-HSL-15	CH042158	CH072081
1	1 5/8	5/16	1 3/16	430-HSL-16	CH042166	CH07209X
1 1/16	1 11/16	5/16	1 3/16	430-HSL-17	CH042174	CH072103
1 1/8	1 3/4	5/16	1 3/16	430-HSL-18	CH042182	CH072111
1 3/16	1 13/16	5/16	1 3/16	430-HSL-19	CH042190	CH07212X
1 1/4	1 7/8	5/16	1 3/16	430-HSL-20	CH042204	CH072138
1 5/16	1 15/16	5/16	1 3/16	430-HSL-21	CH042212	CH072146
1 3/8	2	5/16	1 3/16	430-HSL-22	CH042220	CH072154
1 7/16	2 1/16	5/16	1 3/16	430-HSL-23	CH042239	CH072162
1 1/2	2 1/8	5/16	1 3/16	430-HSL-24	CH042247	CH072170
1 9/16	2 3/16	5/16	1 3/16	430-HSL-25	CH042255	CH072189
1 5/8	2 1/4	5/16	1 3/16	430-HSL-26	CH042263	CH072197
1 11/16	2 5/16	5/16	1 3/16	430-HSL-27	CH042271	CH072200
1 3/4	2 3/8	5/16	1 3/16	430-HSL-28	CH04228X	CH072219
1 13/16	2 7/16	5/16	1 3/16	430-HSL-29	CH042298	CH072227
1 7/8	2 1/2	5/16	1 3/16	430-HSL-30	CH042301	CH072235
1 15/16	2 9/16	5/16	1 3/16	430-HSL-31	CH04231X	CH072243
2	2 5/8	5/16	1 3/16	430-HSL-32	CH042328	CH072251
2	2 3/4	3/8	1 7/16	430-HSL-33	CH042336	CH07226X
2 1/8	2 7/8	3/8	1 7/16	430-HSL-34	CH042344	CH072278

Continued...

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 430 HSL (inch sizes) continued

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
2 1/4	3	3/8	1 7/16	430-HSL-35	CH042352	CH072286
2 3/8	3 1/8	3/8	1 7/16	430-HSL-36	CH042360	CH072294
2 1/2	3 1/4	3/8	1 7/16	430-HSL-37	CH042379	CH072308
2 5/8	3 3/8	3/8	1 7/16	430-HSL-38	CH042387	CH072316
2 3/4	3 1/2	3/8	1 7/16	430-HSL-39	CH042395	CH072324
2 7/8	3 5/8	3/8	1 7/16	430-HSL-40	CH042409	CH072332
3	3 3/4	3/8	1 7/16	430-HSL-41	CH042417	CH072340
3 1/8	3 7/8	3/8	1 7/16	430-HSL-42	CH042425	CH072359
3 1/4	4	3/8	1 7/16	430-HSL-43	CH042433	CH072367
3 3/8	4 1/8	3/8	1 7/16	430-HSL-44	CH042441	CH072375
3 1/2	4 1/4	3/8	1 7/16	430-HSL-45	CH04245X	CH072391
3 3/8	4 3/8	1/2	2	430-HSL-46	CH042468	CH072383
3 1/2	4 1/2	1/2	2	430-HSL-47	CH042476	CH072405
3 5/8	4 5/8	1/2	2	430-HSL-48	CH042484	CH072413
3 3/4	4 3/4	1/2	2	430-HSL-49	CH042492	CH072421
3 7/8	4 7/8	1/2	2	430-HSL-50	CH042506	CH07243X
4	5	1/2	2	430-HSL-51	CH042514	CH072448
4 1/8	5 1/8	1/2	2	430-HSL-52	CH042522	CH072456
4 1/4	5 1/4	1/2	2	430-HSL-53	CH042530	CH072464
4 3/8	5 3/8	1/2	2	430-HSL-54	CH042549	CH072472
4 1/2	5 1/2	1/2	2	430-HSL-55	CH042557	CH072480
4 5/8	5 5/8	1/2	2	430-HSL-56	CH042565	CH072499
4 3/4	5 3/4	1/2	2	430-HSL-57	CH042573	CH072502
4 7/8	5 7/8	1/2	2	430-HSL-58	CH042581	CH072510
5	6	1/2	2	430-HSL-59	CH04259X	CH072529
5 1/8	6 1/8	1/2	2	430-HSL-60	CH042603	CH072537
5 1/4	6 1/4	1/2	2	430-HSL-61	CH042611	CH072545
5 3/8	6 3/8	1/2	2	430-HSL-62	CH04262X	CH072553
5 1/2	6 1/2	1/2	2	430-HSL-63	CH042638	CH072561
5 5/8	6 5/8	1/2	2	430-HSL-64	CH042646	CH07257X
5 3/4	6 3/4	1/2	2	430-HSL-65	CH042654	CH072588
5 7/8	6 7/8	1/2	2	430-HSL-66	CH042662	CH072596
6	7	1/2	2	430-HSL-67	CH042670	CH07260X
6	7 1/4	5/8	2 5/16	430-HSL-68	CH042689	CH072618
6 1/4	7 1/2	5/8	2 5/16	430-HSL-69	CH042697	CH072626
6 1/2	7 3/4	5/8	2 5/16	430-HSL-70	CH042700	CH072634
6 3/4	8	5/8	2 5/16	430-HSL-71	CH042719	CH072642
7	8 1/4	5/8	2 5/16	430-HSL-72	CH042727	CH072650
7 1/4	8 1/2	5/8	2 5/16	430-HSL-73	CH042735	CH072669
7 1/2	8 3/4	5/8	2 5/16	430-HSL-74	CH042743	CH072677
7 3/4	9	5/8	2 5/16	430-HSL-75	CH042751	CH072685
8	9 1/4	5/8	2 5/16	430-HSL-76	CH04276X	CH072693

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
8 1/4	9 1/2	5/8	2 5/16	430-HSL-77	CH042778	CH072707
8 1/2	9 3/4	5/8	2 5/16	430-HSL-78	CH042786	CH072715
8 3/4	10	5/8	2 5/16	430-HSL-79	CH042794	CH072723
9	10 1/4	5/8	2 5/16	430-HSL-80	CH042808	CH072731
9 1/4	10 1/2	5/8	2 5/16	430-HSL-81	CH042816	CH07274X
9 1/2	10 3/4	5/8	2 5/16	430-HSL-82	CH042824	CH072758
9 3/4	11	5/8	2 5/16	430-HSL-83	CH042832	CH072766
10	11 1/4	5/8	2 5/16	430-HSL-84	CH042840	CH072774
10 1/4	11 1/2	5/8	2 5/16	430-HSL-85	CH042859	CH072782
10 1/2	11 3/4	5/8	2 5/16	430-HSL-86	CH042867	CH072790
10 3/4	12	5/8	2 5/16	430-HSL-87	CH042875	CH072804
11	12 1/4	5/8	2 5/16	430-HSL-88	CH042883	CH072812
11 1/4	12 1/2	5/8	2 5/16	430-HSL-89	CH042891	CH072820
11 1/2	12 3/4	5/8	2 5/16	430-HSL-90	CH042905	CH072839
11 3/4	13	5/8	2 5/16	430-HSL-91	CH042913	CH072847
12	13 1/4	5/8	2 5/16	430-HSL-92	CH042921	CH072855
12 1/4	13 1/2	5/8	2 5/16	430-HSL-93	CH04293X	CH072863
12 1/2	13 3/4	5/8	2 5/16	430-HSL-94	CH042948	CH072871
12 3/4	14	5/8	2 5/16	430-HSL-95	CH042956	CH07288X
13	14 1/4	5/8	2 5/16	430-HSL-96	CH042964	CH072898
13 1/4	14 1/2	5/8	2 5/16	430-HSL-97	CH042972	CH072901
13 1/2	14 3/4	5/8	2 5/16	430-HSL-98	CH042980	CH07291X
13 3/4	15	5/8	2 5/16	430-HSL-99	CH042999	CH072928
14	15 1/4	5/8	2 5/16	430-HSL-100	CH043006	CH072936
14 1/4	15 1/2	5/8	2 5/16	430-HSL-101	CH043014	CH072944
14 1/2	15 3/4	5/8	2 5/16	430-HSL-102	CH043022	CH072952
14 3/4	16	5/8	2 5/16	430-HSL-103	CH043030	CH072960
15	16 1/4	5/8	2 5/16	430-HSL-104	CH043049	CH072979
15 1/4	16 1/2	5/8	2 5/16	430-HSL-105	CH043057	CH072987
15 1/2	16 3/4	5/8	2 5/16	430-HSL-106	CH043065	CH072995
15 3/4	17	5/8	2 5/16	430-HSL-107	CH043073	CH073002
16	17 1/4	5/8	2 5/16	430-HSL-108	CH043081	CH073010
16	17 1/2	3/4	3 1/4	430-HSL-109	CH04309X	CH073029
16 1/2	18	3/4	3 1/4	430-HSL-110	CH043103	CH073037
17	18 1/2	3/4	3 1/4	430-HSL-111	CH043111	CH073045
17 1/2	19	3/4	3 1/4	430-HSL-112	CH04312X	CH073053
18	19 1/2	3/4	3 1/4	430-HSL-113	CH043138	CH073061
18 1/2	20	3/4	3 1/4	430-HSL-114	CH043146	CH07307X
19	20 1/2	3/4	3 1/4	430-HSL-115	CH043154	CH073088
19 1/2	21	3/4	3 1/4	430-HSL-116	CH043162	CH073096
20	21 1/2	3/4	3 1/4	430-HSL-117	CH043170	CH07310X

(Chevron® is known as Shallex® in some regions)

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 430 LNA (inch sizes)

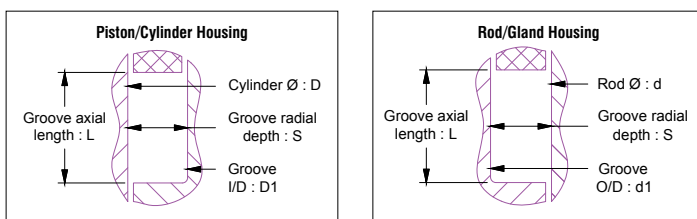
### Rod/gland & piston/cylinder sealing applications

Original JW established inch (fraction) size range for non-adjustable Piston and Rod Seal Housings.

Designed to suit the long axial length series housings of the 1950 edition of BS 1658, which was declared obsolete and replaced by BS5751, which, itself has been superseded by BS ISO 5597.

Rod Ø ≤ 9 3/4 in: Acetal gland ring is standard.

Rod Ø > 9 3/4 in: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
5/16	11/16	3/16	1/2	430-LNA-1	CH044010	CH074017
3/8	3/4	3/16	1/2	430-LNA-2	CH044029	CH074025
7/16	13/16	3/16	1/2	430-LNA-3	CH044037	CH074033
1/2	7/8	3/16	1/2	430-LNA-4	CH044045	CH074041
9/16	15/16	3/16	1/2	430-LNA-5	CH044053	CH07405X
5/8	1	3/16	1/2	430-LNA-6	CH044061	CH074068
11/16	1 1/16	3/16	1/2	430-LNA-7	CH04407X	CH074076
5/8	1 1/8	1/4	3/4	430-LNA-8	CH044088	CH074084
11/16	1 3/16	1/4	3/4	430-LNA-9	CH044096	CH074092
3/4	1 1/4	1/4	3/4	430-LNA-10	CH04410X	CH074106
13/16	1 5/16	1/4	3/4	430-LNA-11	CH044118	CH074114
7/8	1 3/8	1/4	3/4	430-LNA-12	CH044126	CH074122
15/16	1 7/16	1/4	3/4	430-LNA-13	CH044134	CH074130
1	1 1/2	1/4	3/4	430-LNA-14	CH044142	CH074149
15/16	1 9/16	5/16	1	430-LNA-15	CH044150	CH074157
1	1 5/8	5/16	1	430-LNA-16	CH044169	CH074165
1 1/16	1 11/16	5/16	1	430-LNA-17	CH044177	CH074173
1 1/8	1 3/4	5/16	1	430-LNA-18	CH044185	CH074181
1 3/16	1 13/16	5/16	1	430-LNA-19	CH044193	CH07419X
1 1/4	1 7/8	5/16	1	430-LNA-20	CH044207	CH074203
1 5/16	1 15/16	5/16	1	430-LNA-21	CH044215	CH074211
1 3/8	2	5/16	1	430-LNA-22	CH044223	CH07422X
1 7/16	2 1/16	5/16	1	430-LNA-23	CH044231	CH074238
1 1/2	2 1/8	5/16	1	430-LNA-24	CH04424X	CH074246
1 9/16	2 3/16	5/16	1	430-LNA-25	CH044258	CH074254
1 5/8	2 1/4	5/16	1	430-LNA-26	CH044266	CH074262
1 11/16	2 5/16	5/16	1	430-LNA-27	CH044274	CH074270
1 3/4	2 3/8	5/16	1	430-LNA-28	CH044282	CH074289

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
1 13/16	2 7/16	5/16	1	430-LNA-29	CH044290	CH074297
1 7/8	2 1/2	5/16	1	430-LNA-30	CH044304	CH074300
1 15/16	2 9/16	5/16	1	430-LNA-31	CH044312	CH074319
2	2 5/8	5/16	1	430-LNA-32	CH044320	CH074327
2	2 3/4	3/8	1 1/4	430-LNA-33	CH044339	CH074335
2 1/8	2 7/8	3/8	1 1/4	430-LNA-34	CH044347	CH074343
2 1/4	3	3/8	1 1/4	430-LNA-35	CH044355	CH074351
2 3/8	3 1/8	3/8	1 1/4	430-LNA-36	CH044363	CH07436X
2 1/2	3 1/4	3/8	1 1/4	430-LNA-37	CH044371	CH074378
2 5/8	3 3/8	3/8	1 1/4	430-LNA-38	CH04438X	CH074386
2 3/4	3 1/2	3/8	1 1/4	430-LNA-39	CH044398	CH074394
2 7/8	3 5/8	3/8	1 1/4	430-LNA-40	CH044401	CH074408
3	3 3/4	3/8	1 1/4	430-LNA-41	CH04441X	CH074416
3 1/8	3 7/8	3/8	1 1/4	430-LNA-42	CH044428	CH074424
3 1/4	4	3/8	1 1/4	430-LNA-43	CH044436	CH074432
3 3/8	4 1/8	3/8	1 1/4	430-LNA-44	CH044444	CH074440
3 3/8	4 3/8	1/2	1 3/4	430-LNA-46	CH044460	CH074467
3 1/2	4 1/4	3/8	1 1/4	430-LNA-45	CH044452	CH074459
3 1/2	4 1/2	1/2	1 3/4	430-LNA-47	CH044479	CH074475
3 5/8	4 5/8	1/2	1 3/4	430-LNA-48	CH044487	CH074483
3 3/4	4 3/4	1/2	1 3/4	430-LNA-49	CH044495	CH074491
3 7/8	4 7/8	1/2	1 3/4	430-LNA-50	CH044509	CH074505
4	5	1/2	1 3/4	430-LNA-51	CH044517	CH074513
4 1/8	5 1/8	1/2	1 3/4	430-LNA-52	CH044525	CH074521
4 1/4	5 1/4	1/2	1 3/4	430-LNA-53	CH044533	CH07453X
4 3/8	5 3/8	1/2	1 3/4	430-LNA-54	CH044541	CH074548
4 1/2	5 1/2	1/2	1 3/4	430-LNA-55	CH04455X	CH074556
4 5/8	5 5/8	1/2	1 3/4	430-LNA-56	CH044568	CH074564
4 3/4	5 3/4	1/2	1 3/4	430-LNA-57	CH044576	CH074572
4 7/8	5 7/8	1/2	1 3/4	430-LNA-58	CH044584	CH074580
5	6	1/2	1 3/4	430-LNA-59	CH044592	CH074599
5 1/8	6 1/8	1/2	1 3/4	430-LNA-60	CH044606	CH074602
5 1/4	6 1/4	1/2	1 3/4	430-LNA-61	CH044614	CH074610
5 3/8	6 3/8	1/2	1 3/4	430-LNA-62	CH044622	CH074629
5 1/2	6 1/2	1/2	1 3/4	430-LNA-63	CH044630	CH074637
5 5/8	6 5/8	1/2	1 3/4	430-LNA-64	CH044649	CH074645
5 3/4	6 3/4	1/2	1 3/4	430-LNA-65	CH044657	CH074653
5 7/8	6 7/8	1/2	1 3/4	430-LNA-66	CH044665	CH074661
6	7	1/2	1 3/4	430-LNA-67	CH044673	CH07467X
6	7 1/4	5/8	2	430-LNA-68	CH044681	CH074688
6 1/4	7 1/2	5/8	2	430-LNA-69	CH04469X	CH074696
6 1/2	7 3/4	5/8	2	430-LNA-70	CH044703	CH07470X

Continued...

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 430 LNA (inch sizes) continued

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
6 3/4	8	5/8	2	430-LNA-71	CH044711	CH074718
7	8 1/4	5/8	2	430-LNA-72	CH04472X	CH074726
7 1/4	8 1/2	5/8	2	430-LNA-73	CH044738	CH074734
7 1/2	8 3/4	5/8	2	430-LNA-74	CH044746	CH074742
7 3/4	9	5/8	2	430-LNA-75	CH044754	CH074750
8	9 1/4	5/8	2	430-LNA-76	CH044762	CH074769
8 1/4	9 1/2	5/8	2	430-LNA-77	CH044770	CH074777
8 1/2	9 3/4	5/8	2	430-LNA-78	CH044789	CH074785
8 3/4	10	5/8	2	430-LNA-79	CH044797	CH074793
9	10 1/4	5/8	2	430-LNA-80	CH044800	CH074807
9 1/4	10 1/2	5/8	2	430-LNA-81	CH044819	CH074815
9 1/2	10 3/4	5/8	2	430-LNA-82	CH044827	CH074823
9 3/4	11	5/8	2	430-LNA-83	CH044835	CH074831
10	11 1/4	5/8	2	430-LNA-84	CH044843	CH07484X
10 1/4	11 1/2	5/8	2	430-LNA-85	CH044851	CH074858
10 1/2	11 3/4	5/8	2	430-LNA-86	CH04486X	CH074866
10 3/4	12	5/8	2	430-LNA-87	CH044878	CH074874
11	12 1/4	5/8	2	430-LNA-88	CH044886	CH074882
11 1/4	12 1/2	5/8	2	430-LNA-89	CH044894	CH074890
11 1/2	12 3/4	5/8	2	430-LNA-90	CH044908	CH074904
11 3/4	13	5/8	2	430-LNA-91	CH044916	CH074912
12	13 1/4	5/8	2	430-LNA-92	CH044924	CH074920
12 1/4	13 1/2	5/8	2	430-LNA-93	CH044932	CH074939
12 1/2	13 3/4	5/8	2	430-LNA-94	CH044940	CH074947
12 3/4	14	5/8	2	430-LNA-95	CH044959	CH074955
13	14 1/4	5/8	2	430-LNA-96	CH044967	CH074963
13 1/4	14 1/2	5/8	2	430-LNA-97	CH044975	CH074971
13 1/2	14 3/4	5/8	2	430-LNA-98	CH044983	CH07498X
13 3/4	15	5/8	2	430-LNA-99	CH044991	CH074998
14	15 1/4	5/8	2	430-LNA-100	CH045009	CH075005
14 1/4	15 1/2	5/8	2	430-LNA-101	CH045017	CH075013
14 1/2	15 3/4	5/8	2	430-LNA-102	CH045025	CH075021
14 3/4	16	5/8	2	430-LNA-103	CH045033	CH07503X
15	16 1/4	5/8	2	430-LNA-104	CH045041	CH075048
15 1/4	16 1/2	5/8	2	430-LNA-105	CH04505X	CH075056
15 1/2	16 3/4	5/8	2	430-LNA-106	CH045068	CH075064
15 3/4	17	5/8	2	430-LNA-107	CH045076	CH075072
16	17 1/4	5/8	2	430-LNA-108	CH045084	CH075080
16	17 1/2	3/4	2 7/8	430-LNA-109	CH045092	CH075099
16 1/2	18	3/4	2 7/8	430-LNA-110	CH045106	CH075102
17	18 1/2	3/4	2 7/8	430-LNA-111	CH045114	CH075110

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
17 1/2	19	3/4	2 7/8	430-LNA-112	CH045122	CH075129
18	19 1/2	3/4	2 7/8	430-LNA-113	CH045130	CH075137
18 1/2	20	3/4	2 7/8	430-LNA-114	CH045149	CH075145
19	20 1/2	3/4	2 7/8	430-LNA-115	CH045157	CH075153
19 1/2	21	3/4	2 7/8	430-LNA-116	CH045165	CH075161
20	21 1/2	3/4	2 7/8	430-LNA-117	CH045173	CH07517X

(Chevron® is known as Shallex® in some regions)

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 430 LSL (inch sizes)

### Rod/gland & piston/cylinder sealing applications

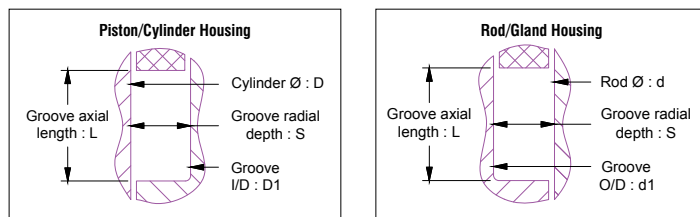
Spring-loaded header seal sets designed to allow for a degree of compensation for wear and loss of as-moulded sealing ring interference.

JW established inch (fraction) size range for longer non-adjustable Piston and Rod Seal Housings.

Housings have same radial depth but longer axial length dimensions in comparison to JW Chart 430 LNA

Rod Ø ≤ 9 3/4 in: Acetal gland ring is standard.

Rod Ø > 9 3/4 in: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
5/8	1 1/8	1/4	3/4	430-LSL-8	CH046080	CH07601X
11/16	1 3/16	1/4	3/4	430-LSL-9	CH046099	CH076028
1	1 1/4	1/4	3/4	430-LSL-10	CH046102	CH076036
13/16	1 5/16	1/4	3/4	430-LSL-11	CH046110	CH076044
7/8	1 3/8	1/4	3/4	430-LSL-12	CH046129	CH076052
15/16	1 7/16	1/4	3/4	430-LSL-13	CH046137	CH076060
1	1 1/2	1/4	3/4	430-LSL-14	CH046145	CH076079
15/16	1 9/16	5/16	1	430-LSL-15	CH046153	CH076087
1	1 5/8	5/16	1	430-LSL-16	CH046161	CH076095
1 1/16	1 11/16	5/16	1	430-LSL-17	CH04617X	CH076109
1 1/8	1 3/4	5/16	1	430-LSL-18	CH046188	CH076117
1 3/16	1 13/16	5/16	1	430-LSL-19	CH046196	CH076125
1 1/4	1 7/8	5/16	1	430-LSL-20	CH04620X	CH076133
1 5/16	1 15/16	5/16	1	430-LSL-21	CH046218	CH076141
1 3/8	2	5/16	1	430-LSL-22	CH046226	CH07615X
1 7/16	2 1/16	5/16	1	430-LSL-23	CH046234	CH076168
1 1/2	2 1/8	5/16	1	430-LSL-24	CH046242	CH076176
1 9/16	2 3/16	5/16	1	430-LSL-25	CH046250	CH076184
1 5/8	2 1/4	5/16	1	430-LSL-26	CH046269	CH076192
1 11/16	2 5/16	5/16	1	430-LSL-27	CH046277	CH076206
1 3/4	2 3/8	5/16	1	430-LSL-28	CH046285	CH076214
1 13/16	2 7/16	5/16	1	430-LSL-29	CH046293	CH076222
1 7/8	2 1/2	5/16	1	430-LSL-30	CH046307	CH076230
1 15/16	2 9/16	5/16	1	430-LSL-31	CH046315	CH076249
2	2 5/8	5/16	1	430-LSL-32	CH046323	CH076257
2	2 3/4	3/8	1 1/4	430-LSL-33	CH046331	CH076265
2 1/8	2 7/8	3/8	1 1/4	430-LSL-34	CH04634X	CH076273
2 1/4	3	3/8	1 1/4	430-LSL-35	CH046358	CH076281
2 3/8	3 1/8	3/8	1 1/4	430-LSL-36	CH046366	CH07629X
2 1/2	3 1/4	3/8	1 1/4	430-LSL-37	CH046374	CH076303

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
2 5/8	3 3/8	3/8	1 1/4	430-LSL-38	CH046382	CH076311
2 3/4	3 1/2	3/8	1 1/4	430-LSL-39	CH046390	CH07632X
2 7/8	3 5/8	3/8	1 1/4	430-LSL-40	CH046404	CH076338
3	3 3/4	3/8	1 1/4	430-LSL-41	CH046412	CH076346
3 1/8	3 7/8	3/8	1 1/4	430-LSL-42	CH046420	CH076354
3 1/4	4	3/8	1 1/4	430-LSL-43	CH046439	CH076362
3 3/8	4 1/8	3/8	1 1/4	430-LSL-44	CH046447	CH076370
3 1/2	4 1/4	3/8	1 1/4	430-LSL-45	CH046455	CH076389
3 3/8	4 3/8	1/2	1 3/4	430-LSL-46	CH046463	CH076397
3 1/2	4 1/2	1/2	1 3/4	430-LSL-47	CH046471	CH076400
3 5/8	4 5/8	1/2	1 3/4	430-LSL-48	CH04648X	CH076419
3 3/4	4 3/4	1/2	1 3/4	430-LSL-49	CH046498	CH076427
3 7/8	4 7/8	4/8	1 6/8	430-LSL-50	CH046501	CH076435
4	5	1/2	1 3/4	430-LSL-51	CH04651X	CH076443
4 1/8	5 1/8	1/2	1 3/4	430-LSL-52	CH046528	CH076451
4 1/4	5 1/4	1/2	1 3/4	430-LSL-53	CH046536	CH07646X
4 3/8	5 3/8	1/2	1 3/4	430-LSL-54	CH046544	CH076478
4 1/2	5 1/2	1/2	1 3/4	430-LSL-55	CH046552	CH076486
4 5/8	5 5/8	1/2	1 3/4	430-LSL-56	CH046560	CH076494
4 3/4	5 3/4	1/2	1 3/4	430-LSL-57	CH046579	CH076508
4 7/8	5 7/8	1/2	1 3/4	430-LSL-58	CH046587	CH076516
5	6	1/2	1 3/4	430-LSL-59	CH046595	CH076524
5 1/8	6 1/8	1/2	1 3/4	430-LSL-60	CH046609	CH076532
5 1/4	6 1/4	1/2	1 3/4	430-LSL-61	CH046617	CH076540
5 3/8	6 3/8	1/2	1 3/4	430-LSL-62	CH046625	CH076559
5 1/2	6 1/2	1/2	1 3/4	430-LSL-63	CH046633	CH076567
5 5/8	6 5/8	1/2	1 3/4	430-LSL-64	CH046641	CH076575
5 3/4	6 3/4	1/2	1 3/4	430-LSL-65	CH04665X	CH076583
5 7/8	6 7/8	1/2	1 3/4	430-LSL-66	CH046668	CH076591
6	7	1/2	1 3/4	430-LSL-67	CH046676	CH076605
6	7 1/4	5/8	2	430-LSL-68	CH046684	CH076613
6 1/4	7 1/2	5/8	2	430-LSL-69	CH046692	CH076621
6 1/2	7 3/4	5/8	2	430-LSL-70	CH046706	CH07663X
6 3/4	8	5/8	2	430-LSL-71	CH046714	CH076648
7	8 1/4	5/8	2	430-LSL-72	CH046722	CH076656
7 1/4	8 1/2	5/8	2	430-LSL-73	CH046730	CH076664
7 1/2	8 3/4	5/8	2	430-LSL-74	CH046749	CH076672
7 3/4	9	5/8	2	430-LSL-75	CH046757	CH076680
8	9 1/4	5/8	2	430-LSL-76	CH046765	CH076699
8 1/4	9 1/2	5/8	2	430-LSL-77	CH046773	CH076702
8 1/2	9 3/4	5/8	2	430-LSL-78	CH046781	CH076710
8 3/4	10	5/8	2	430-LSL-79	CH04679X	CH076729
9	10 1/4	5/8	2	430-LSL-80	CH046803	CH076737
9 1/4	10 1/2	5/8	2	430-LSL-81	CH046811	CH076745

Continued...

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 430 LSL (inch sizes) continued

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
9 1/2	10 3/4	5/8	2	430-LSL-82	CH04682X	CH076753
9 3/4	11	5/8	2	430-LSL-83	CH046838	CH076761
10	11 1/4	5/8	2	430-LSL-84	CH046846	CH07677X
10 1/4	11 1/2	5/8	2	430-LSL-85	CH046854	CH076788
10 1/2	11 3/4	5/8	2	430-LSL-86	CH046862	CH076796
10 3/4	12	5/8	2	430-LSL-87	CH046870	CH07680X
11	12 1/4	5/8	2	430-LSL-88	CH046889	CH076818
11 1/4	12 1/2	5/8	2	430-LSL-89	CH046897	CH076826
11 1/2	12 3/4	5/8	2	430-LSL-90	CH046900	CH076834
11 3/4	13	5/8	2	430-LSL-91	CH046919	CH076842
12	13 1/4	5/8	2	430-LSL-92	CH046927	CH076850
12 1/4	13 1/2	5/8	2	430-LSL-93	CH046935	CH076869
12 1/2	13 3/4	5/8	2	430-LSL-94	CH046943	CH076877
12 3/4	14	5/8	2	430-LSL-95	CH046951	CH076885
13	14 1/4	5/8	2	430-LSL-96	CH04696X	CH076893
13 1/4	14 1/2	5/8	2	430-LSL-97	CH046978	CH076907
13 1/2	14 3/4	5/8	2	430-LSL-98	CH046986	CH076915
13 3/4	15	5/8	2	430-LSL-99	CH046994	CH076923
14	15 1/4	5/8	2	430-LSL-100	CH047001	CH076931
14 1/4	15 1/2	5/8	2	430-LSL-101	CH04701X	CH07694X
14 1/2	15 3/4	5/8	2	430-LSL-102	CH047028	CH076958
14 3/4	16	5/8	2	430-LSL-103	CH047036	CH076966
15	16 1/4	5/8	2	430-LSL-104	CH047044	CH076974
15 1/4	16 1/2	5/8	2	430-LSL-105	CH047052	CH076982
15 1/2	16 3/4	5/8	2	430-LSL-106	CH047060	CH076990
15 3/4	17	5/8	2	430-LSL-107	CH047079	CH077008
16	17 1/4	5/8	2	430-LSL-108	CH047087	CH077016
16	17 1/2	3/4	2 7/8	430-LSL-109	CH047095	CH077024
16 1/2	18	3/4	2 7/8	430-LSL-110	CH047109	CH077032
17	18 1/2	3/4	2 7/8	430-LSL-111	CH047117	CH077040
17 1/2	19	3/4	2 7/8	430-LSL-112	CH047125	CH077059
18	19 1/2	3/4	2 7/8	430-LSL-113	CH047133	CH077067
18 1/2	20	3/4	2 7/8	430-LSL-114	CH047141	CH077075
19	20 1/2	3/4	2 7/8	430-LSL-115	CH04715X	CH077083
19 1/2	21	3/4	2 7/8	430-LSL-116	CH047168	CH077091
20	21 1/2	3/4	2 7/8	430-LSL-117	CH047176	CH077105

(Chevron® is known as Shallex® in some regions)

## Chevron® — JW Chart 431 HNA

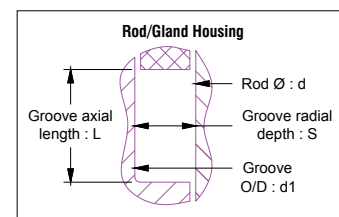
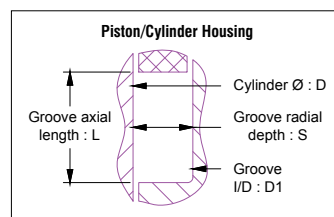
### Rod/gland & piston/cylinder sealing applications

Original JW established metric(mm) size range for non-adjustable Piston and Rod Seal Housings.

Designed to suit longer axial length housings in comparison to the JW 431 LNA range of seals.

Rod Ø ≤ 250mm: Acetal gland ring is standard.

Rod Ø > 250mm: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
8.00	18.00	5.00	17.00	431-HNA-1	CH050010	CH080017
9.00	19.00	5.00	17.00	431-HNA-2	CH050029	CH080025
10.00	20.00	5.00	17.00	431-HNA-3	CH050037	CH080033
11.00	21.00	5.00	17.00	431-HNA-4	CH050045	CH080041
12.00	22.00	5.00	17.00	431-HNA-5	CH050053	CH08005X
13.00	23.00	5.00	17.00	431-HNA-6	CH050061	CH080068
14.00	24.00	5.00	17.00	431-HNA-7	CH05007X	CH080076
15.00	25.00	5.00	17.00	431-HNA-8	CH050088	CH080084
13.00	26.00	6.50	21.50	431-HNA-9	CH050096	CH080092
14.00	27.00	6.50	21.50	431-HNA-10	CH05010X	CH080106
15.00	28.00	6.50	21.50	431-HNA-11	CH050118	CH080114
16.00	29.00	6.50	21.50	431-HNA-12	CH050126	CH080122
17.00	30.00	6.50	21.50	431-HNA-13	CH050134	CH080130
18.00	31.00	6.50	21.50	431-HNA-14	CH050142	CH080149
19.00	32.00	6.50	21.50	431-HNA-15	CH050150	CH080157
20.00	33.00	6.50	21.50	431-HNA-16	CH050169	CH080165
21.00	34.00	6.50	21.50	431-HNA-17	CH050177	CH080173
22.00	35.00	6.50	21.50	431-HNA-18	CH050185	CH080181
23.00	36.00	6.50	21.50	431-HNA-19	CH050193	CH08019X
24.00	37.00	6.50	21.50	431-HNA-20	CH050207	CH080203
25.00	38.00	6.50	21.50	431-HNA-21	CH050215	CH080211
23.00	39.00	8.00	33.00	431-HNA-22	CH050223	CH08022X
24.00	40.00	8.00	33.00	431-HNA-23	CH050231	CH080238
25.00	41.00	8.00	33.00	431-HNA-24	CH05024X	CH080246
26.00	42.00	8.00	33.00	431-HNA-25	CH050258	CH080254
27.00	43.00	8.00	33.00	431-HNA-26	CH050266	CH080262
28.00	44.00	8.00	33.00	431-HNA-27	CH050274	CH080270
29.00	45.00	8.00	33.00	431-HNA-28	CH050282	CH080289
30.00	46.00	8.00	33.00	431-HNA-29	CH050290	CH080297
31.00	47.00	8.00	33.00	431-HNA-30	CH050304	CH080300
32.00	48.00	8.00	33.00	431-HNA-31	CH050312	CH080319
33.00	49.00	8.00	33.00	431-HNA-32	CH050320	CH080327
34.00	50.00	8.00	33.00	431-HNA-33	CH050339	CH080335

Continued...

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 431 HNA continued

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
35.00	51.00	8.00	33.00	431-HNA-34	CH050347	CH080343
36.00	52.00	8.00	33.00	431-HNA-35	CH050355	CH080351
37.00	53.00	8.00	33.00	431-HNA-36	CH050363	CH08036X
38.00	54.00	8.00	33.00	431-HNA-37	CH050371	CH080378
39.00	55.00	8.00	33.00	431-HNA-38	CH05038X	CH080386
40.00	56.00	8.00	33.00	431-HNA-39	CH050398	CH080394
41.00	57.00	8.00	33.00	431-HNA-40	CH050401	CH080408
42.00	58.00	8.00	33.00	431-HNA-41	CH05041X	CH080416
43.00	59.00	8.00	33.00	431-HNA-42	CH050428	CH080424
44.00	60.00	8.00	33.00	431-HNA-43	CH050436	CH080432
45.00	61.00	8.00	33.00	431-HNA-44	CH050444	CH080440
46.00	62.00	8.00	33.00	431-HNA-45	CH050452	CH080459
47.00	63.00	8.00	33.00	431-HNA-46	CH050460	CH080467
48.00	64.00	8.00	33.00	431-HNA-47	CH050479	CH080475
49.00	65.00	8.00	33.00	431-HNA-48	CH050487	CH080483
50.00	66.00	8.00	33.00	431-HNA-49	CH050495	CH080491
50.00	70.00	10.00	40.00	431-HNA-50	CH050509	CH080505
52.00	72.00	10.00	40.00	431-HNA-51	CH050517	CH080513
55.00	75.00	10.00	40.00	431-HNA-52	CH050525	CH080521
56.00	76.00	10.00	40.00	431-HNA-52A	CH050533	CH08053X
57.00	77.00	10.00	40.00	431-HNA-53	CH050541	CH080548
60.00	80.00	10.00	40.00	431-HNA-54	CH05055X	CH080556
62.00	82.00	10.00	40.00	431-HNA-55	CH050568	CH080564
63.00	83.00	10.00	40.00	431-HNA-55A	CH050576	CH080572
65.00	85.00	10.00	40.00	431-HNA-56	CH050584	CH080580
67.00	87.00	10.00	40.00	431-HNA-57	CH050592	CH080599
70.00	90.00	10.00	40.00	431-HNA-58	CH050606	CH080602
72.00	92.00	10.00	40.00	431-HNA-59	CH050614	CH080610
75.00	95.00	10.00	40.00	431-HNA-60	CH050622	CH080629
77.00	97.00	10.00	40.00	431-HNA-61	CH050630	CH080637
80.00	100.00	10.00	40.00	431-HNA-62	CH050649	CH080645
82.00	102.00	10.00	40.00	431-HNA-63	CH050657	CH080653
85.00	105.00	10.00	40.00	431-HNA-64	CH050665	CH080661
87.00	107.00	10.00	40.00	431-HNA-65	CH050673	CH08067X
90.00	110.00	10.00	40.00	431-HNA-66	CH050681	CH080688
90.00	115.00	12.50	48.50	431-HNA-67	CH05069X	CH080696
95.00	120.00	12.50	48.50	431-HNA-68	CH050703	CH08070X
100.00	125.00	12.50	48.50	431-HNA-69	CH050711	CH080718
105.00	130.00	12.50	48.50	431-HNA-70	CH05072X	CH080726
110.00	135.00	12.50	48.50	431-HNA-71	CH050738	CH080734
115.00	140.00	12.50	48.50	431-HNA-72	CH050746	CH080742
120.00	145.00	12.50	48.50	431-HNA-73	CH050754	CH080750
125.00	150.00	12.50	48.50	431-HNA-74	CH050762	CH080769
130.00	155.00	12.50	48.50	431-HNA-75	CH050770	CH080777
135.00	160.00	12.50	48.50	431-HNA-76	CH050789	CH080785
140.00	165.00	12.50	48.50	431-HNA-77	CH050797	CH080793
145.00	170.00	12.50	48.50	431-HNA-78	CH050800	CH080807
150.00	175.00	12.50	48.50	431-HNA-79	CH050819	CH080815
150.00	180.00	15.00	58.00	431-HNA-80	CH050827	CH080823

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
155.00	185.00	15.00	58.00	431-HNA-81	CH050835	CH080831
160.00	190.00	15.00	58.00	431-HNA-82	CH050843	CH08084X
165.00	195.00	15.00	58.00	431-HNA-83	CH050851	CH080858
170.00	200.00	15.00	58.00	431-HNA-84	CH05086X	CH080866
175.00	205.00	15.00	58.00	431-HNA-85	CH050878	CH080874
180.00	210.00	15.00	58.00	431-HNA-86	CH050886	CH080882
185.00	215.00	15.00	58.00	431-HNA-87	CH050894	CH080890
190.00	220.00	15.00	58.00	431-HNA-88	CH050908	CH080904
195.00	225.00	15.00	58.00	431-HNA-89	CH050916	CH080912
200.00	230.00	15.00	58.00	431-HNA-90	CH050924	CH080920
205.00	235.00	15.00	58.00	431-HNA-91	CH050932	CH080939
210.00	240.00	15.00	58.00	431-HNA-92	CH050940	CH080947
215.00	245.00	15.00	58.00	431-HNA-93	CH050959	CH080955
220.00	250.00	15.00	58.00	431-HNA-94	CH050967	CH080963
225.00	255.00	15.00	58.00	431-HNA-95	CH050975	CH080971
230.00	260.00	15.00	58.00	431-HNA-96	CH050983	CH08098X
235.00	265.00	15.00	58.00	431-HNA-97	CH050991	CH080998
240.00	270.00	15.00	58.00	431-HNA-98	CH051009	CH081005
245.00	275.00	15.00	58.00	431-HNA-99	CH051017	CH081013
250.00	280.00	15.00	58.00	431-HNA-100	CH051025	CH081021
255.00	285.00	15.00	58.00	431-HNA-101	CH051033	CH08103X
260.00	290.00	15.00	58.00	431-HNA-102	CH051041	CH081048
265.00	295.00	15.00	58.00	431-HNA-103	CH05105X	CH081056
270.00	300.00	15.00	58.00	431-HNA-104	CH051068	CH081064
280.00	310.00	15.00	58.00	431-HNA-105	CH051076	CH081072
290.00	320.00	15.00	58.00	431-HNA-106	CH051084	CH081080
300.00	330.00	15.00	58.00	431-HNA-107	CH051092	CH081099
310.00	340.00	15.00	58.00	431-HNA-108	CH051106	CH081102
320.00	350.00	15.00	58.00	431-HNA-109	CH051114	CH081110
330.00	360.00	15.00	58.00	431-HNA-110	CH051122	CH081129
340.00	370.00	15.00	58.00	431-HNA-111	CH051130	CH081137
350.00	380.00	15.00	58.00	431-HNA-112	CH051149	CH081145
360.00	390.00	15.00	58.00	431-HNA-113	CH051157	CH081153
370.00	400.00	15.00	58.00	431-HNA-114	CH051165	CH081161
380.00	410.00	15.00	58.00	431-HNA-115	CH051173	CH08117X
390.00	420.00	15.00	58.00	431-HNA-116	CH051181	CH081188
400.00	430.00	15.00	58.00	431-HNA-117	CH05119X	CH081196
400.00	440.00	20.00	89.00	431-HNA-118	CH051203	CH08120X
410.00	450.00	20.00	89.00	431-HNA-119	CH051211	CH081218
420.00	460.00	20.00	89.00	431-HNA-120	CH05122X	CH081226
430.00	470.00	20.00	89.00	431-HNA-121	CH051238	CH081234
440.00	480.00	20.00	89.00	431-HNA-122	CH051246	CH081242
450.00	490.00	20.00	89.00	431-HNA-123	CH051254	CH081250
460.00	500.00	20.00	89.00	431-HNA-124	CH051262	CH081269
470.00	510.00	20.00	89.00	431-HNA-125	CH051270	CH081277
480.00	520.00	20.00	89.00	431-HNA-126	CH051289	CH081285
490.00	530.00	20.00	89.00	431-HNA-127	CH051297	CH081293
500.00	540.00	20.00	89.00	431-HNA-128	CH051300	CH081307

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# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 431 HSL

### Rod/gland & piston/cylinder sealing applications

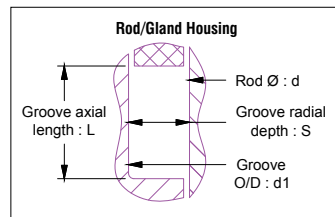
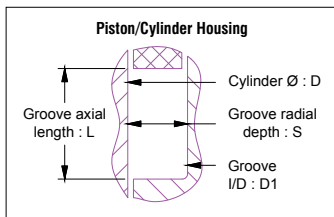
Spring-loaded header seal sets designed to allow for a degree of compensation for wear and loss of as-moulded sealing ring interference.

JW established metric (mm) size range for longer non-adjustable Piston and Rod Seal Housings.

Housings have same radial depth but longer axial length dimensions in comparison to JW Chart 431 HNA.

Rod Ø ≤ 250mm: Acetal gland ring is standard.

Rod Ø > 250mm: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
13.00	26.00	6.50	21.50	431-HSL-9	CH052099	CH08201X
14.00	27.00	6.50	21.50	431-HSL-10	CH052102	CH082028
15.00	28.00	6.50	21.50	431-HSL-11	CH052110	CH082036
16.00	29.00	6.50	21.50	431-HSL-12	CH052129	CH082044
17.00	30.00	6.50	21.50	431-HSL-13	CH052137	CH082052
18.00	31.00	6.50	21.50	431-HSL-14	CH052145	CH082060
19.00	32.00	6.50	21.50	431-HSL-15	CH052153	CH082079
20.00	33.00	6.50	21.50	431-HSL-16	CH052161	CH082087
21.00	34.00	6.50	21.50	431-HSL-17	CH05217X	CH082095
22.00	35.00	6.50	21.50	431-HSL-18	CH052188	CH082109
23.00	36.00	6.50	21.50	431-HSL-19	CH052196	CH082117
24.00	37.00	6.50	21.50	431-HSL-20	CH05220X	CH082125
25.00	38.00	6.50	21.50	431-HSL-21	CH052218	CH082133
23.00	39.00	8.00	33.00	431-HSL-22	CH052226	CH082141
24.00	40.00	8.00	33.00	431-HSL-23	CH052234	CH08215X
25.00	41.00	8.00	33.00	431-HSL-24	CH052242	CH082168
26.00	42.00	8.00	33.00	431-HSL-25	CH052250	CH082176
27.00	43.00	8.00	33.00	431-HSL-26	CH052269	CH082184
28.00	44.00	8.00	33.00	431-HSL-27	CH052277	CH082192
29.00	45.00	8.00	33.00	431-HSL-28	CH052285	CH082206
30.00	46.00	8.00	33.00	431-HSL-29	CH052293	CH082214
31.00	47.00	8.00	33.00	431-HSL-30	CH052307	CH082222
32.00	48.00	8.00	33.00	431-HSL-31	CH052315	CH082230
33.00	49.00	8.00	33.00	431-HSL-32	CH052323	CH082249
34.00	50.00	8.00	33.00	431-HSL-33	CH052331	CH082257
35.00	51.00	8.00	33.00	431-HSL-34	CH05234X	CH082265
36.00	52.00	8.00	33.00	431-HSL-35	CH052358	CH082273
37.00	53.00	8.00	33.00	431-HSL-36	CH052366	CH082281

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
38.00	54.00	8.00	33.00	431-HSL-37	CH052374	CH08229X
39.00	55.00	8.00	33.00	431-HSL-38	CH052382	CH082303
40.00	56.00	8.00	33.00	431-HSL-39	CH052390	CH082311
41.00	57.00	8.00	33.00	431-HSL-40	CH052404	CH08232X
42.00	58.00	8.00	33.00	431-HSL-41	CH052412	CH082338
43.00	59.00	8.00	33.00	431-HSL-42	CH052420	CH082346
44.00	60.00	8.00	33.00	431-HSL-43	CH052439	CH082354
45.00	61.00	8.00	33.00	431-HSL-44	CH052447	CH082362
46.00	62.00	8.00	33.00	431-HSL-45	CH052455	CH082370
47.00	63.00	8.00	33.00	431-HSL-46	CH052463	CH082389
48.00	64.00	8.00	33.00	431-HSL-47	CH052471	CH082397
49.00	65.00	8.00	33.00	431-HSL-48	CH05248X	CH082400
50.00	66.00	8.00	33.00	431-HSL-49	CH052498	CH082419
50.00	70.00	10.00	40.00	431-HSL-50	CH052501	CH082427
52.00	72.00	10.00	40.00	431-HSL-51	CH05251X	CH082435
55.00	75.00	10.00	40.00	431-HSL-52	CH052528	CH082443
56.00	76.00	10.00	40.00	431-HSL-52A	CH052536	CH082451
57.00	77.00	10.00	40.00	431-HSL-53	CH052544	CH08246X
60.00	80.00	10.00	40.00	431-HSL-54	CH052552	CH082478
62.00	82.00	10.00	40.00	431-HSL-55	CH052560	CH082486
63.00	83.00	10.00	40.00	431-HSL-55A	CH052579	CH082494
65.00	85.00	10.00	40.00	431-HSL-56	CH052587	CH082508
67.00	87.00	10.00	40.00	431-HSL-57	CH052595	CH082516
70.00	90.00	10.00	40.00	431-HSL-58	CH052609	CH082524
72.00	92.00	10.00	40.00	431-HSL-59	CH052617	CH082532
75.00	95.00	10.00	40.00	431-HSL-60	CH052625	CH082540
77.00	97.00	10.00	40.00	431-HSL-61	CH052633	CH082559
80.00	100.00	10.00	40.00	431-HSL-62	CH052641	CH082605
82.00	102.00	10.00	40.00	431-HSL-63	CH05265X	CH082613
85.00	105.00	10.00	40.00	431-HSL-64	CH052668	CH082621
87.00	107.00	10.00	40.00	431-HSL-65	CH052676	CH08263X
90.00	110.00	10.00	40.00	431-HSL-66	CH052684	CH082648
90.00	115.00	12.50	48.50	431-HSL-67	CH052692	CH082656
95.00	120.00	12.50	48.50	431-HSL-68	CH052706	CH082664
100.00	125.00	12.50	48.50	431-HSL-69	CH052714	CH082672
105.00	130.00	12.50	48.50	431-HSL-70	CH052722	CH082680
110.00	135.00	12.50	48.50	431-HSL-71	CH052730	CH082699
115.00	140.00	12.50	48.50	431-HSL-72	CH052749	CH082702
120.00	145.00	12.50	48.50	431-HSL-73	CH052757	CH082710
125.00	150.00	12.50	48.50	431-HSL-74	CH052765	CH082729
130.00	155.00	12.50	48.50	431-HSL-75	CH052773	CH082737
135.00	160.00	12.50	48.50	431-HSL-76	CH052781	CH082745
140.00	165.00	12.50	48.50	431-HSL-77	CH05279X	CH082753

Continued...



# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 431 HSL continued

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
145.00	170.00	12.50	48.50	431-HSL-78	CH052803	CH082761
150.00	175.00	12.50	48.50	431-HSL-79	CH052811	CH08277X
150.00	180.00	15.00	58.00	431-HSL-80	CH05282X	CH082788
155.00	185.00	15.00	58.00	431-HSL-81	CH052838	CH082796
160.00	190.00	15.00	58.00	431-HSL-82	CH052846	CH08280X
165.00	195.00	15.00	58.00	431-HSL-83	CH052854	CH082818
170.00	200.00	15.00	58.00	431-HSL-84	CH052862	CH082826
175.00	205.00	15.00	58.00	431-HSL-85	CH052870	CH082834
180.00	210.00	15.00	58.00	431-HSL-86	CH052889	CH082842
185.00	215.00	15.00	58.00	431-HSL-87	CH052897	CH082850
190.00	220.00	15.00	58.00	431-HSL-88	CH052900	CH082869
195.00	225.00	15.00	58.00	431-HSL-89	CH052919	CH082877
200.00	230.00	15.00	58.00	431-HSL-90	CH052927	CH082885
205.00	235.00	15.00	58.00	431-HSL-91	CH052935	CH082893
210.00	240.00	15.00	58.00	431-HSL-92	CH052943	CH082907
215.00	245.00	15.00	58.00	431-HSL-93	CH052951	CH082915
220.00	250.00	15.00	58.00	431-HSL-94	CH05296X	CH082923
225.00	255.00	15.00	58.00	431-HSL-95	CH052978	CH082931
230.00	260.00	15.00	58.00	431-HSL-96	CH052986	CH08294X
235.00	265.00	15.00	58.00	431-HSL-97	CH052994	CH082958
240.00	270.00	15.00	58.00	431-HSL-98	CH053001	CH082966
245.00	275.00	15.00	58.00	431-HSL-99	CH05301X	CH082974
250.00	280.00	15.00	58.00	431-HSL-100	CH053028	CH082982
255.00	285.00	15.00	58.00	431-HSL-101	CH053036	CH082990
260.00	290.00	15.00	58.00	431-HSL-102	CH053044	CH083008
265.00	295.00	15.00	58.00	431-HSL-103	CH053052	CH083016
270.00	300.00	15.00	58.00	431-HSL-104	CH053060	CH083024
280.00	310.00	15.00	58.00	431-HSL-105	CH053079	CH083032
290.00	320.00	15.00	58.00	431-HSL-106	CH053087	CH083040
300.00	330.00	15.00	58.00	431-HSL-107	CH053095	CH083059
310.00	340.00	15.00	58.00	431-HSL-108	CH053109	CH083067
320.00	350.00	15.00	58.00	431-HSL-109	CH053117	CH083075
330.00	360.00	15.00	58.00	431-HSL-110	CH053125	CH083083
340.00	370.00	15.00	58.00	431-HSL-111	CH053133	CH083091
350.00	380.00	15.00	58.00	431-HSL-112	CH053141	CH083105
360.00	390.00	15.00	58.00	431-HSL-113	CH05315X	CH083113
370.00	400.00	15.00	58.00	431-HSL-114	CH053168	CH083121
380.00	410.00	15.00	58.00	431-HSL-115	CH053176	CH08313X
390.00	420.00	15.00	58.00	431-HSL-116	CH053184	CH083148
400.00	430.00	15.00	58.00	431-HSL-117	CH053192	CH083156
400.00	440.00	20.00	89.00	431-HSL-118	CH053206	CH083164
410.00	450.00	20.00	89.00	431-HSL-119	CH053214	CH083172
420.00	460.00	20.00	89.00	431-HSL-120	CH053222	CH083180

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
430.00	470.00	20.00	89.00	431-HSL-121	CH053230	CH083199
440.00	480.00	20.00	89.00	431-HSL-122	CH053249	CH083202
450.00	490.00	20.00	89.00	431-HSL-123	CH053257	CH083210
460.00	500.00	20.00	89.00	431-HSL-124	CH053265	CH083229
470.00	510.00	20.00	89.00	431-HSL-125	CH053273	CH083237
480.00	520.00	20.00	89.00	431-HSL-126	CH053281	CH083245
490.00	530.00	20.00	89.00	431-HSL-127	CH05329X	CH083253
500.00	540.00	20.00	89.00	431-HSL-128	CH053303	CH083261

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# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 431 LNA

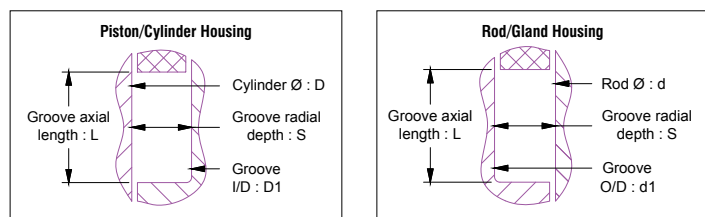
### Rod/gland & piston/cylinder sealing applications

Original JW established metric (mm) size range for non-adjustable Piston and Rod Seal Housings.

Some sizes align with the requirements of BS ISO 5597 - Long (L3) axial length series housings.

Rod Ø ≤ 250mm: Acetal gland ring is standard.

Rod Ø > 250mm: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
8.00	18.00	5.00	14.50	431-LNA-1	CH054016	CH084012
9.00	19.00	5.00	14.50	431-LNA-2	CH054024	CH084020
10.00	20.00	5.00	14.50	431-LNA-3	CH054032	CH084039
11.00	21.00	5.00	14.50	431-LNA-4	CH054040	CH084047
12.00	22.00	5.00	14.50	431-LNA-5	CH054059	CH084055
13.00	23.00	5.00	14.50	431-LNA-6	CH054067	CH084063
13.00	26.00	6.50	18.50	431-LNA-9	CH054091	CH084071
14.00	24.00	5.00	14.50	431-LNA-7	CH054075	CH08408X
14.00	27.00	6.50	18.50	431-LNA-10	CH054105	CH084098
15.00	25.00	5.00	14.50	431-LNA-8	CH054083	CH084101
15.00	28.00	6.50	18.50	431-LNA-11	CH054113	CH08411X
16.00	29.00	6.50	18.50	431-LNA-12	CH054121	CH084128
17.00	30.00	6.50	18.50	431-LNA-13	CH05413X	CH084136
18.00	31.00	6.50	18.50	431-LNA-14	CH054148	CH084144
19.00	32.00	6.50	18.50	431-LNA-15	CH054156	CH084152
20.00	33.00	6.50	18.50	431-LNA-16	CH054164	CH084160
21.00	34.00	6.50	18.50	431-LNA-17	CH054172	CH084179
22.00	35.00	6.50	18.50	431-LNA-18	CH054180	CH084187
23.00	36.00	6.50	18.50	431-LNA-19	CH054199	CH084195
23.00	39.00	8.00	29.00	431-LNA-22	CH054229	CH084209
24.00	37.00	6.50	18.50	431-LNA-20	CH054202	CH084217
24.00	40.00	8.00	29.00	431-LNA-23	CH054237	CH084225
25.00	38.00	6.50	18.50	431-LNA-21	CH054210	CH084233
25.00	41.00	8.00	29.00	431-LNA-24	CH054245	CH084241
26.00	42.00	8.00	29.00	431-LNA-25	CH054253	CH08425X
27.00	43.00	8.00	29.00	431-LNA-26	CH054261	CH084268
28.00	44.00	8.00	29.00	431-LNA-27	CH05427X	CH084276
29.00	45.00	8.00	29.00	431-LNA-28	CH054288	CH084284

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
30.00	46.00	8.00	29.00	431-LNA-29	CH054296	CH084292
31.00	47.00	8.00	29.00	431-LNA-30	CH05430X	CH084306
32.00	48.00	8.00	29.00	431-LNA-31	CH054318	CH084314
33.00	49.00	8.00	29.00	431-LNA-32	CH054326	CH084322
34.00	50.00	8.00	29.00	431-LNA-33	CH054334	CH084330
35.00	51.00	8.00	29.00	431-LNA-34	CH054342	CH084349
36.00	52.00	8.00	29.00	431-LNA-35	CH054350	CH084357
37.00	53.00	8.00	29.00	431-LNA-36	CH054369	CH084365
38.00	54.00	8.00	29.00	431-LNA-37	CH054377	CH084373
39.00	55.00	8.00	29.00	431-LNA-38	CH054385	CH084381
40.00	56.00	8.00	29.00	431-LNA-39	CH054393	CH08439X
41.00	57.00	8.00	29.00	431-LNA-40	CH054407	CH084403
42.00	58.00	8.00	29.00	431-LNA-41	CH054415	CH084411
43.00	59.00	8.00	29.00	431-LNA-42	CH054423	CH08442X
44.00	60.00	8.00	29.00	431-LNA-43	CH054431	CH084438
45.00	61.00	8.00	29.00	431-LNA-44	CH05444X	CH084446
46.00	62.00	8.00	29.00	431-LNA-45	CH054458	CH084454
47.00	63.00	8.00	29.00	431-LNA-46	CH054466	CH084462
48.00	64.00	8.00	29.00	431-LNA-47	CH054474	CH084470
49.00	65.00	8.00	29.00	431-LNA-48	CH054482	CH084489
50.00	66.00	8.00	29.00	431-LNA-49	CH054490	CH084497
50.00	70.00	10.00	35.00	431-LNA-50	CH054504	CH084500
52.00	72.00	10.00	35.00	431-LNA-51	CH054512	CH084519
55.00	75.00	10.00	35.00	431-LNA-52	CH054520	CH084527
56.00	76.00	10.00	35.00	431-LNA-52A	CH054539	CH084535
57.00	77.00	10.00	35.00	431-LNA-53	CH054547	CH084543
60.00	80.00	10.00	35.00	431-LNA-54	CH054555	CH084551
62.00	82.00	10.00	35.00	431-LNA-55	CH054563	CH08456X
63.00	83.00	10.00	35.00	431-LNA-55A	CH054571	CH084578
65.00	85.00	10.00	35.00	431-LNA-56	CH05458X	CH084586
67.00	87.00	10.00	35.00	431-LNA-57	CH054598	CH084594
70.00	90.00	10.00	35.00	431-LNA-58	CH054601	CH084608
72.00	92.00	10.00	35.00	431-LNA-59	CH05461X	CH084616
75.00	95.00	10.00	35.00	431-LNA-60	CH054628	CH084624
77.00	97.00	10.00	35.00	431-LNA-61	CH054636	CH084632
80.00	100.00	10.00	35.00	431-LNA-62	CH054644	CH084640
82.00	102.00	10.00	35.00	431-LNA-63	CH054652	CH084659
85.00	105.00	10.00	35.00	431-LNA-64	CH054660	CH084667
87.00	107.00	10.00	35.00	431-LNA-65	CH054679	CH084675
90.00	110.00	10.00	35.00	431-LNA-66	CH054687	CH084683
90.00	115.00	12.50	42.50	431-LNA-67	CH054695	CH084691
95.00	120.00	12.50	42.50	431-LNA-68	CH054709	CH084705

Continued...

## Chevron® — rod/gland &amp; piston seals

## Chevron® — JW Chart 431 LNA continued

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
100.00	125.00	12.50	42.50	431-LNA-69	CH054717	CH084713
105.00	130.00	12.50	42.50	431-LNA-70	CH054725	CH084721
110.00	135.00	12.50	42.50	431-LNA-71	CH054733	CH08473X
115.00	140.00	12.50	42.50	431-LNA-72	CH054741	CH084748
120.00	145.00	12.50	42.50	431-LNA-73	CH05475X	CH084756
125.00	150.00	12.50	42.50	431-LNA-74	CH054768	CH084764
130.00	155.00	12.50	42.50	431-LNA-75	CH054776	CH084772
135.00	160.00	12.50	42.50	431-LNA-76	CH054784	CH084780
140.00	165.00	12.50	42.50	431-LNA-77	CH054792	CH084799
145.00	170.00	12.50	42.50	431-LNA-78	CH054806	CH084802
150.00	175.00	12.50	42.50	431-LNA-79	CH054814	CH084810
150.00	180.00	15.00	50.50	431-LNA-80	CH054822	CH084829
155.00	185.00	15.00	50.50	431-LNA-81	CH054830	CH084837
160.00	190.00	15.00	50.50	431-LNA-82	CH054849	CH084845
165.00	195.00	15.00	50.50	431-LNA-83	CH054857	CH084853
170.00	200.00	15.00	50.50	431-LNA-84	CH054865	CH084861
175.00	205.00	15.00	50.50	431-LNA-85	CH054873	CH08487X
180.00	210.00	15.00	50.50	431-LNA-86	CH054881	CH084888
185.00	215.00	15.00	50.50	431-LNA-87	CH05489X	CH084896
190.00	220.00	15.00	50.50	431-LNA-88	CH054903	CH08490X
195.00	225.00	15.00	50.50	431-LNA-89	CH054911	CH084918
200.00	230.00	15.00	50.50	431-LNA-90	CH05492X	CH084926
205.00	235.00	15.00	50.50	431-LNA-91	CH054938	CH084934
210.00	240.00	15.00	50.50	431-LNA-92	CH054946	CH084942
215.00	245.00	15.00	50.50	431-LNA-93	CH054954	CH084950
220.00	250.00	15.00	50.50	431-LNA-94	CH054962	CH084969
225.00	255.00	15.00	50.50	431-LNA-95	CH054970	CH084977
230.00	260.00	15.00	50.50	431-LNA-96	CH054989	CH084985
235.00	265.00	15.00	50.50	431-LNA-97	CH054997	CH084993
240.00	270.00	15.00	50.50	431-LNA-98	CH055004	CH085000
245.00	275.00	15.00	50.50	431-LNA-99	CH055012	CH085019
250.00	280.00	15.00	50.50	431-LNA-100	CH055020	CH085027
255.00	285.00	15.00	50.50	431-LNA-101	CH055039	CH085035
260.00	290.00	15.00	50.50	431-LNA-102	CH055047	CH085043
265.00	295.00	15.00	50.50	431-LNA-103	CH055055	CH085051
270.00	300.00	15.00	50.50	431-LNA-104	CH055063	CH08506X
280.00	310.00	15.00	50.50	431-LNA-105	CH055071	CH085078
290.00	320.00	15.00	50.50	431-LNA-106	CH05508X	CH085086
300.00	330.00	15.00	50.50	431-LNA-107	CH055098	CH085094
310.00	340.00	15.00	50.50	431-LNA-108	CH055101	CH085108
320.00	350.00	15.00	50.50	431-LNA-109	CH05511X	CH085116

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
330.00	360.00	15.00	50.50	431-LNA-110	CH055128	CH085124
340.00	370.00	15.00	50.50	431-LNA-111	CH055136	CH085132
350.00	380.00	15.00	50.50	431-LNA-112	CH055144	CH085140
360.00	390.00	15.00	50.50	431-LNA-113	CH055152	CH085159
370.00	400.00	15.00	50.50	431-LNA-114	CH055160	CH085167
380.00	410.00	15.00	50.50	431-LNA-115	CH055179	CH085175
390.00	420.00	15.00	50.50	431-LNA-116	CH055187	CH085183
400.00	430.00	15.00	50.50	431-LNA-117	CH055195	CH085191
400.00	440.00	20.00	79.00	431-LNA-118	CH055209	CH085205
410.00	450.00	20.00	79.00	431-LNA-119	CH055217	CH085213
420.00	460.00	20.00	79.00	431-LNA-120	CH055225	CH085221
430.00	470.00	20.00	79.00	431-LNA-121	CH055233	CH08523X
440.00	480.00	20.00	79.00	431-LNA-122	CH055241	CH085248
450.00	490.00	20.00	79.00	431-LNA-123	CH05525X	CH085256
460.00	500.00	20.00	79.00	431-LNA-124	CH055268	CH085264
470.00	510.00	20.00	79.00	431-LNA-125	CH055276	CH085272
480.00	520.00	20.00	79.00	431-LNA-126	CH055284	CH085280
490.00	530.00	20.00	79.00	431-LNA-127	CH055292	CH085299
500.00	540.00	20.00	79.00	431-LNA-128	CH055306	CH085302

(Chevron® is known as Shallex® in some regions)

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 431 LSL

### Rod/gland & piston/cylinder sealing applications

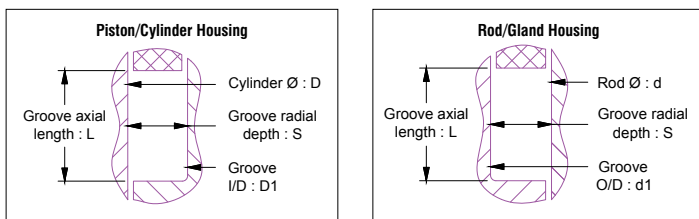
Spring loaded header seal sets designed to allow for a degree of compensation for wear and loss of as-moulded sealing ring interference.

JW established metric (mm) size range for longer non-adjustable Piston and Rod Seal Housings.

Housings have same radial depth but longer axial length dimensions in comparison to JW Chart 431 LNA.

Rod Ø ≤ 250mm: Acetal gland ring is standard.

Rod Ø > 250mm: Rubber proofed fabric gland ring is standard.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
13.00	26.00	6.50	18.50	431-LSL-9	CH056094	CH086015
14.00	27.00	6.50	18.50	431-LSL-10	CH056108	CH086023
15.00	28.00	6.50	18.50	431-LSL-11	CH056116	CH086031
16.00	29.00	6.50	18.50	431-LSL-12	CH056124	CH08604X
17.00	30.00	6.50	18.50	431-LSL-13	CH056132	CH086058
18.00	31.00	6.50	18.50	431-LSL-14	CH056140	CH086066
19.00	32.00	6.50	18.50	431-LSL-15	CH056159	CH086074
20.00	33.00	6.50	18.50	431-LSL-16	CH056167	CH086082
21.00	34.00	6.50	18.50	431-LSL-17	CH056175	CH086090
22.00	35.00	6.50	18.50	431-LSL-18	CH056183	CH086104
23.00	36.00	6.50	18.50	431-LSL-19	CH056191	CH086112
24.00	37.00	6.50	18.50	431-LSL-20	CH056205	CH086120
25.00	38.00	6.50	18.50	431-LSL-21	CH056213	CH086139
23.00	39.00	8.00	29.00	431-LSL-22	CH056221	CH086147
24.00	40.00	8.00	29.00	431-LSL-23	CH05623X	CH086155
25.00	41.00	8.00	29.00	431-LSL-24	CH056248	CH086163
26.00	42.00	8.00	29.00	431-LSL-25	CH056256	CH086171
27.00	43.00	8.00	29.00	431-LSL-26	CH056264	CH08618X
28.00	44.00	8.00	29.00	431-LSL-27	CH056272	CH086198
29.00	45.00	8.00	29.00	431-LSL-28	CH056280	CH086201
30.00	46.00	8.00	29.00	431-LSL-29	CH056299	CH08621X
31.00	47.00	8.00	29.00	431-LSL-30	CH056302	CH086228
32.00	48.00	8.00	29.00	431-LSL-31	CH056310	CH086236
33.00	49.00	8.00	29.00	431-LSL-32	CH056329	CH086244
34.00	50.00	8.00	29.00	431-LSL-33	CH056337	CH086252
35.00	51.00	8.00	29.00	431-LSL-34	CH056345	CH086260
36.00	52.00	8.00	29.00	431-LSL-35	CH056353	CH086279

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
37.00	53.00	8.00	29.00	431-LSL-36	CH056361	CH086287
38.00	54.00	8.00	29.00	431-LSL-37	CH05637X	CH086295
39.00	55.00	8.00	29.00	431-LSL-38	CH056388	CH086309
40.00	56.00	8.00	29.00	431-LSL-39	CH056396	CH086317
41.00	57.00	8.00	29.00	431-LSL-40	CH05640X	CH086325
42.00	58.00	8.00	29.00	431-LSL-41	CH056418	CH086333
43.00	59.00	8.00	29.00	431-LSL-42	CH056426	CH086341
44.00	60.00	8.00	29.00	431-LSL-43	CH056434	CH08635X
45.00	61.00	8.00	29.00	431-LSL-44	CH056442	CH086368
46.00	62.00	8.00	29.00	431-LSL-45	CH056450	CH086376
47.00	63.00	8.00	29.00	431-LSL-46	CH056469	CH086384
48.00	64.00	8.00	29.00	431-LSL-47	CH056477	CH086392
49.00	65.00	8.00	29.00	431-LSL-48	CH056485	CH086406
50.00	66.00	8.00	29.00	431-LSL-49	CH056493	CH086414
50.00	70.00	10.00	35.00	431-LSL-50	CH056507	CH086422
52.00	72.00	10.00	35.00	431-LSL-51	CH056515	CH086430
55.00	75.00	10.00	35.00	431-LSL-52	CH056523	CH086449
56.00	76.00	10.00	35.00	431-LSL-52A	CH056531	CH086457
57.00	77.00	10.00	35.00	431-LSL-53	CH05654X	CH086465
60.00	80.00	10.00	35.00	431-LSL-54	CH056558	CH086473
62.00	82.00	10.00	35.00	431-LSL-55	CH056566	CH086481
63.00	83.00	10.00	35.00	431-LSL-55A	CH056574	CH08649X
65.00	85.00	10.00	35.00	431-LSL-56	CH056582	CH086503
67.00	87.00	10.00	35.00	431-LSL-57	CH056590	CH086511
70.00	90.00	10.00	35.00	431-LSL-58	CH056604	CH08652X
72.00	92.00	10.00	35.00	431-LSL-59	CH056612	CH086538
75.00	95.00	10.00	35.00	431-LSL-60	CH056620	CH086546
77.00	97.00	10.00	35.00	431-LSL-61	CH056639	CH086554
80.00	100.00	10.00	35.00	431-LSL-62	CH056647	CH086562
82.00	102.00	10.00	35.00	431-LSL-63	CH056655	CH086570
85.00	105.00	10.00	35.00	431-LSL-64	CH056663	CH086589
87.00	107.00	10.00	35.00	431-LSL-65	CH056671	CH086597
90.00	110.00	10.00	35.00	431-LSL-66	CH05668X	CH086600
90.00	115.00	12.50	42.50	431-LSL-67	CH056698	CH086619
95.00	120.00	12.50	42.50	431-LSL-68	CH056701	CH086627
100.00	125.00	12.50	42.50	431-LSL-69	CH05671X	CH086635
105.00	130.00	12.50	42.50	431-LSL-70	CH056728	CH086643
110.00	135.00	12.50	42.50	431-LSL-71	CH056736	CH086651
115.00	140.00	12.50	42.50	431-LSL-72	CH056744	CH08666X
120.00	145.00	12.50	42.50	431-LSL-73	CH056752	CH086678
125.00	150.00	12.50	42.50	431-LSL-74	CH056760	CH086686
130.00	155.00	12.50	42.50	431-LSL-75	CH056779	CH086694

Continued...

# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 431 LSL continued

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
135.00	160.00	12.50	42.50	431-LSL-76	CH056787	CH086708
140.00	165.00	12.50	42.50	431-LSL-77	CH056795	CH086716
145.00	170.00	12.50	42.50	431-LSL-78	CH056809	CH086724
150.00	175.00	12.50	42.50	431-LSL-79	CH056817	CH086732
150.00	180.00	15.00	50.50	431-LSL-80	CH056825	CH086740
155.00	185.00	15.00	50.50	431-LSL-81	CH056833	CH086759
160.00	190.00	15.00	50.50	431-LSL-82	CH056841	CH086767
165.00	195.00	15.00	50.50	431-LSL-83	CH05685X	CH086775
170.00	200.00	15.00	50.50	431-LSL-84	CH056868	CH086783
175.00	205.00	15.00	50.50	431-LSL-85	CH056876	CH086791
180.00	210.00	15.00	50.50	431-LSL-86	CH056884	CH086805
185.00	215.00	15.00	50.50	431-LSL-87	CH056892	CH086813
190.00	220.00	15.00	50.50	431-LSL-88	CH056906	CH086821
195.00	225.00	15.00	50.50	431-LSL-89	CH056914	CH08683X
200.00	230.00	15.00	50.50	431-LSL-90	CH056922	CH086848
205.00	235.00	15.00	50.50	431-LSL-91	CH056930	CH086856
210.00	240.00	15.00	50.50	431-LSL-92	CH056949	CH086864
215.00	245.00	15.00	50.50	431-LSL-93	CH056957	CH086872
220.00	250.00	15.00	50.50	431-LSL-94	CH056965	CH086880
225.00	255.00	15.00	50.50	431-LSL-95	CH056973	CH086899
230.00	260.00	15.00	50.50	431-LSL-96	CH056981	CH086902
235.00	265.00	15.00	50.50	431-LSL-97	CH05699X	CH086910
240.00	270.00	15.00	50.50	431-LSL-98	CH057007	CH086929
245.00	275.00	15.00	50.50	431-LSL-99	CH057015	CH086937
250.00	280.00	15.00	50.50	431-LSL-100	CH057023	CH086945
255.00	285.00	15.00	50.50	431-LSL-101	CH057031	CH086953
260.00	290.00	15.00	50.50	431-LSL-102	CH05704X	CH086961
265.00	295.00	15.00	50.50	431-LSL-103	CH057058	CH08697X
270.00	300.00	15.00	50.50	431-LSL-104	CH057066	CH086988
280.00	310.00	15.00	50.50	431-LSL-105	CH057074	CH086996
290.00	320.00	15.00	50.50	431-LSL-106	CH057082	CH087003
300.00	330.00	15.00	50.50	431-LSL-107	CH057090	CH087011
310.00	340.00	15.00	50.50	431-LSL-108	CH057104	CH08702X
320.00	350.00	15.00	50.50	431-LSL-109	CH057112	CH087038
330.00	360.00	15.00	50.50	431-LSL-110	CH057120	CH087046
340.00	370.00	15.00	50.50	431-LSL-111	CH057139	CH087054
350.00	380.00	15.00	50.50	431-LSL-112	CH057147	CH087062
360.00	390.00	15.00	50.50	431-LSL-113	CH057155	CH087070
370.00	400.00	15.00	50.50	431-LSL-114	CH057163	CH087089
380.00	410.00	15.00	50.50	431-LSL-115	CH057171	CH087097
390.00	420.00	15.00	50.50	431-LSL-116	CH05718X	CH087100

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)			
400.00	430.00	15.00	50.50	431-LSL-117	CH057198	CH087119
400.00	440.00	20.00	79.00	431-LSL-118	CH057201	CH087127
410.00	450.00	20.00	79.00	431-LSL-119	CH05721X	CH087135
420.00	460.00	20.00	79.00	431-LSL-120	CH057228	CH087143
430.00	470.00	20.00	79.00	431-LSL-121	CH057236	CH087151
440.00	480.00	20.00	79.00	431-LSL-122	CH057244	CH08716X
450.00	490.00	20.00	79.00	431-LSL-123	CH057252	CH087178
460.00	500.00	20.00	79.00	431-LSL-124	CH057260	CH087186
470.00	510.00	20.00	79.00	431-LSL-125	CH057279	CH087194
480.00	520.00	20.00	79.00	431-LSL-126	CH057287	CH087208
490.00	530.00	20.00	79.00	431-LSL-127	CH057295	CH087216
500.00	540.00	20.00	79.00	431-LSL-128	CH057309	CH087224

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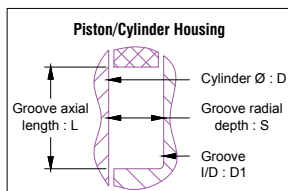
# Chevron® — rod/gland & piston seals

## Chevron® — JW Chart 835

### Piston/cylinder sealing applications

Frequently used European range of metric (mm) sizes for Piston Seal Housings.

Specifically designed shallow seal sets for short axial length housings used on double-acting piston assemblies.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Piston groove I/D (D1)	Radial depth (S)	Axial length (L)		
20.00	10.00	5.00	9.30	835-020	CH090012
22.00	12.00	5.00	9.30	835-022	CH090020
25.00	15.00	5.00	9.30	835-025	CH090039
28.00	18.00	5.00	9.30	835-028	CH090047
30.00	20.00	5.00	9.30	835-030	CH090055
32.00	20.00	6.00	10.90	835-032	CH090063
35.00	23.00	6.00	10.90	835-035	CH090071
36.00	24.00	6.00	10.90	835-036	CH09008X
40.00	25.00	7.50	11.50	835-040	CH090098
42.00	27.00	7.50	11.50	835-042	CH090101
45.00	30.00	7.50	11.50	835-045	CH09011X
50.00	35.00	7.50	11.50	835-050	CH090128
55.00	40.00	7.50	11.50	835-055	CH090136
56.00	41.00	7.50	11.50	835-056	CH090144
60.00	45.00	7.50	11.50	835-060	CH090152
63.00	48.00	7.50	13.00	835-063	CH090160
70.00	50.00	10.00	15.20	835-070	CH090179
80.00	60.00	10.00	15.20	835-080	CH090187
90.00	70.00	10.00	21.20	835-090	CH090195
100.00	80.00	10.00	21.20	835-100	CH090209
110.00	90.00	10.00	21.20	835-110	CH090217
115.00	95.00	10.00	21.20	835-115	CH090225
125.00	100.00	12.50	25.80	835-125	CH090233
140.00	115.00	12.50	25.80	835-140	CH090241
150.00	120.00	15.00	29.00	835-150	CH09025X
160.00	130.00	15.00	29.00	835-160	CH090268
180.00	150.00	15.00	31.50	835-180	CH090276
200.00	170.00	15.00	33.50	835-200	CH090284
225.00	195.00	15.00	33.50	835-225	CH090292
250.00	220.00	15.00	33.50	835-250	CH090306
275.00	245.00	15.00	33.50	835-275	CH090314
300.00	270.00	15.00	33.50	835-300	CH090322

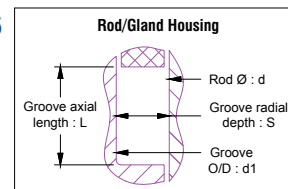
(Chevron® is known as Shallex® in some regions)

## Chevron® — JW Chart 836

### Rod/gland sealing applications

Frequently used European range of metric (mm) sizes for Rod Seal Housings.

Specifically designed seal sets with acetal gland rings throughout the entire range.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
8.00	18.00	5.00	18.50	836-008	CH000005
10.00	20.00	5.00	18.50	836-010	CH000013
12.00	22.00	5.00	18.50	836-012	CH000021
14.00	24.00	5.00	18.50	836-014	CH00003X
15.00	25.00	5.00	18.50	836-015	CH000048
16.00	26.00	5.00	18.50	836-016	CH000056
18.00	28.00	5.00	18.50	836-018	CH000064
20.00	30.00	5.00	18.50	836-020	CH000072
22.00	32.00	5.00	18.50	836-022	CH000080
25.00	37.00	6.00	22.50	836-025	CH000099
28.00	40.00	6.00	22.50	836-028	CH000102
30.00	42.00	6.00	22.50	836-030	CH000110
32.00	44.00	6.00	22.50	836-032	CH000129
35.00	47.00	6.00	22.50	836-035	CH000137
36.00	48.00	6.00	22.50	836-036	CH000145
40.00	52.00	6.00	22.50	836-040	CH000153
42.00	54.00	6.00	22.50	836-042	CH000161
45.00	60.00	7.50	22.50	836-045	CH00017X
50.00	65.00	7.50	22.50	836-050	CH000188
55.00	70.00	7.50	22.50	836-055	CH000196
56.00	71.00	7.50	22.50	836-056	CH00020X
60.00	75.00	7.50	22.50	836-060	CH000218
63.00	78.00	7.50	22.50	836-063	CH000226
65.00	80.00	7.50	22.50	836-065	CH000234
70.00	85.00	7.50	22.50	836-070	CH000242
75.00	90.00	7.50	22.50	836-075	CH000250
80.00	95.00	7.50	22.50	836-080	CH000269
85.00	100.00	7.50	22.50	836-085	CH000307
90.00	105.00	7.50	22.50	836-090	CH000315
100.00	115.00	7.50	30.00	836-100	CH000323
110.00	125.00	7.50	30.00	836-110	CH000331
115.00	130.00	7.50	30.00	836-115	CH00034X
125.00	140.00	7.50	34.00	836-125	CH000358
140.00	155.00	7.50	34.00	836-140	CH000366
150.00	170.00	10.00	40.00	836-150	CH000374
160.00	180.00	10.00	40.00	836-160	CH000382
180.00	200.00	10.00	40.00	836-180	CH000390
200.00	220.00	10.00	40.00	836-200	CH000404

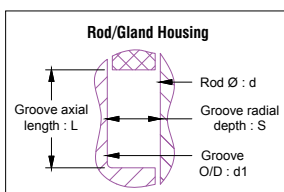
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## Chevron® — rod/gland &amp; piston seals

**Chevron® — JW Chart 837****Rod/gland sealing applications**

Frequently used European range of metric (mm) sizes for Rod Seal Housings.

Specifically designed seal sets with rubber proofed fabric gland rings throughout the entire range.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
20.00	32.00	6.00	22.50	837-020	CH000455
22.00	34.00	6.00	22.50	837-022	CH000463
25.00	40.00	7.50	22.50	837-025	CH000471
28.00	43.00	7.50	22.50	837-028	CH00048X
30.00	45.00	7.50	22.50	837-030	CH000498
32.00	47.00	7.50	22.50	837-032	CH000501
35.00	50.00	7.50	22.50	837-035	CH00051X
36.00	51.00	7.50	22.50	837-036	CH000528
40.00	55.00	7.50	22.50	837-040	CH000536
42.00	57.00	7.50	22.50	837-042	CH000544
45.00	65.00	10.00	27.50	837-045	CH000552
50.00	70.00	10.00	30.00	837-050	CH000560
55.00	75.00	10.00	30.00	837-055	CH000579
56.00	76.00	10.00	37.00	837-056	CH000587
60.00	80.00	10.00	37.00	837-060	CH000595
63.00	83.00	10.00	37.00	837-063	CH000609
65.00	85.00	10.00	40.00	837-065	CH000617
70.00	90.00	10.00	40.00	837-070	CH000625
75.00	95.00	10.00	40.00	837-075	CH000633
80.00	100.00	10.00	40.00	837-080	CH000641
85.00	105.00	10.00	40.00	837-085	CH00065X
90.00	110.00	10.00	40.00	837-090	CH000668
100.00	120.00	10.00	40.00	837-100	CH000676
110.00	130.00	10.00	40.00	837-110	CH000684
115.00	140.00	12.50	46.00	837-115	CH000692
125.00	150.00	12.50	46.00	837-125	CH000706
140.00	165.00	12.50	46.00	837-140	CH000714
150.00	180.00	15.00	60.00	837-150	CH000722
160.00	190.00	15.00	60.00	837-160	CH000730
180.00	210.00	15.00	60.00	837-180	CH000749
200.00	230.00	15.00	60.00	837-200	CH000757

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# Lionsele® LF — rod/gland & piston seals

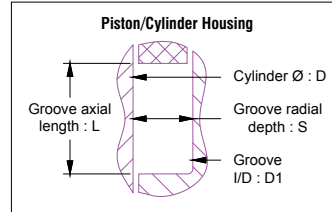
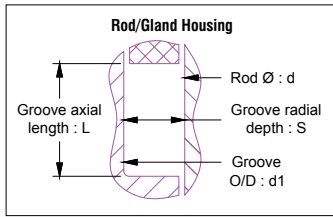
## Lionsele® LF — JW Chart 320

**Rod/gland & piston/cylinder sealing applications**

# - 1; JW established range of metric (mm) housing sizes.

# - 2; JW range of metric (mm) housings that conforms to BS 1806:1989 for Radial depth (S) and Axial length (L) dimensions.

Note: Housing dimensions for BS 1806 have been superseded by BS ISO 3601-2.



Rod/gland sealing applications					
Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
10.00 # -1	12.90	1.45	2.40	320-010012024	XX001901
10.00 # -1	14.50	2.25	3.60	320-010014036	XX001952
12.00 # -1	16.50	2.25	3.60	320-012016036	XX002002
14.00 # -1	18.50	2.25	3.60	320-014018036	XX002053
16.00 # -1	20.50	2.25	3.60	320-016020036	XX00210X
18.00 # -1	22.50	2.25	3.60	320-018022036	XX002150
20.00 # -2	26.20	3.10	4.80	320-020026048	XX002207
22.00 # -2	28.20	3.10	4.80	320-022028048	XX002258
25.00 # -2	31.20	3.10	4.80	320-025031048	XX002304
28.00 # -2	34.20	3.10	4.80	320-028034048	XX002355
30.00 # -2	36.20	3.10	4.80	320-030036048	XX002401
32.00 # -2	38.20	3.10	4.80	320-032038048	XX002452
36.00 # -2	42.20	3.10	4.80	320-036042048	XX002509
40.00 # -2	49.40	4.70	7.10	320-040049071	XX00255X
45.00 # -2	54.40	4.70	7.10	320-045054071	XX002606
50.00 # -2	59.40	4.70	7.10	320-050059071	XX002657
60.00 # -2	69.40	4.70	7.10	320-060069071	XX002703
63.00 # -2	72.40	4.70	7.10	320-063072071	XX002754
65.00 # -2	74.40	4.70	7.10	320-065074071	XX002800
70.00 # -2	79.40	4.70	7.10	320-070079071	XX002851
80.00 # -2	89.40	4.70	7.10	320-080089071	XX002908
90.00 # -2	99.40	4.70	7.10	320-090099071	XX002959
100.00 # -2	109.40	4.70	7.10	320-100109071	XX003009
125.00 # -1	137.20	6.10	9.50	320-125137095	XX00305X

Piston/cylinder sealing applications					
Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
12.00 # -1	9.10	1.45	3.60	320-009012036	XX000050
16.00 # -1	11.50	2.25	3.60	320-011016036	XX000107
18.00 # -1	13.50	2.25	3.60	320-013018036	XX000158
20.00 # -1	15.50	2.25	3.60	320-015020036	XX000204
25.00 # -2	18.80	3.10	4.80	320-018025048	XX000255
28.00 # -2	21.80	3.10	4.80	320-021028048	XX000301
30.00 # -2	23.80	3.10	4.80	320-023030048	XX000352
32.00 # -2	25.80	3.10	4.80	320-025032048	XX000409
35.00 # -2	28.80	3.10	4.80	320-028035048	XX00045X
40.00 # -2	33.80	3.10	4.80	320-033040048	XX000506
42.00 # -1	35.80	3.10	7.10	320-035042071	XX000557
45.00 # -1	38.80	3.10	7.10	320-038045071	XX000603
48.00 # -2	38.60	4.70	7.10	320-038048071	XX000654
50.00 # -2	40.60	4.70	7.10	320-040050071	XX000700
55.00 # -2	45.60	4.70	7.10	320-045055071	XX000751
56.00 # -2	46.60	4.70	7.10	320-046056071	XX000808
60.00 # -2	50.60	4.70	7.10	320-050060071	XX000859
63.00 # -2	53.60	4.70	7.10	320-053063071	XX000905
70.00 # -2	60.60	4.70	7.10	320-060070071	XX000956
75.00 # -2	65.60	4.70	7.10	320-065075071	XX001006
80.00 # -2	70.60	4.70	7.10	320-070080071	XX001057
85.00 # -2	85.60	4.70	7.10	320-075085071	XX001103
90.00 # -2	80.60	4.70	7.10	320-080090071	XX001154
95.00 # -2	85.60	4.70	7.10	320-085095071	XX001200
100.00 # -2	90.60	4.70	7.10	320-090100071	XX001251
110.00 # -2	100.60	4.70	7.10	320-100110071	XX001308
125.00 # -1	112.80	6.10	9.50	320-112125095	XX001359
130.00 # -1	117.80	6.10	9.50	320-117130095	XX001405
140.00 # -1	127.80	6.10	9.50	320-127140095	XX001456
150.00 # -1	137.80	6.10	9.50	320-137150095	XX001502
160.00 # -1	147.80	6.10	9.50	320-147160095	XX001553
170.00 # -1	157.80	6.10	9.50	320-157170095	XX00160X
180.00 # -1	167.80	6.10	9.50	320-167180095	XX001650
190.00 # -1	177.80	6.10	9.50	320-177190095	XX001707
200.00 # -1	187.80	6.10	9.50	320-187200095	XX001758



# Lionsele® U1 — rod/gland & piston seals

## Lionsele® U1 — JW Chart 304

### Rod/gland & piston/cylinder sealing applications

JW established metric (mm) housing size range

# - 1; Dimensions conform to BS ISO 5597 Tables 2, 3 & 7.

L2 (medium) axial length housings for rod seals.

# - 2; Dimensions conform to BS ISO 5597 Tables 2, 4 & 7.

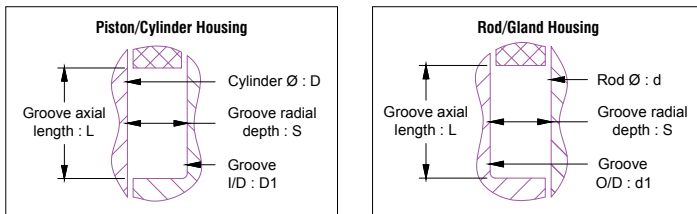
Axial length housings for rod seals for Cylinders to ISO 6020-2.

# - 3; Dimensions conform to BS ISO 5597 Tables 2, 3 & 7.

L2 (medium) axial length housings for piston seals.

# - 4; Dimensions conform to BS ISO 5597 Tables 2, 4 & 7.

Axial length housings for piston seals for Cylinders to ISO 6020-2.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
8.00 #1, #3	16.00	4.00	6.30	304-00806063	UC000013
10.00 #1	20.00	5.00	8.00	304-010020080	UC000005
12.00 #1, #3	20.00	4.00	6.30	304-012020063	UC00003X
12.00 #2	19.00	3.50	5.60	304-012019056	UC000021
12.00 #1	22.00	5.00	8.00	304-012022080	UC000048
14.00 #2	21.00	3.50	5.60	304-014021056	UC000056
14.00 #1	24.00	5.00	8.00	304-014024080	UC000064
15.00 #3	25.00	5.00	8.00	304-015025080	UC000072
16.00 #1	26.00	5.00	8.00	304-016026080	UC000080
18.00 #2, #4	25.00	3.50	5.60	304-018025056	UC000099
18.00 #1	28.00	5.00	8.00	304-018028080	UC000102
20.00 #1	30.00	5.00	8.00	304-020030080	UC000110
22.00 #1, #3	32.00	5.00	8.00	304-022032080	UC000137
22.00 #2	29.00	3.50	5.60	304-022029056	UC000129
25.00 #4	32.00	3.50	5.60	304-025032056	UC000145
25.00 #1	35.00	5.00	8.00	304-025035080	UC000153
28.00 #2	36.00	4.00	6.30	304-028036063	UC00017X
28.00 #1	43.00	7.50	12.50	304-028043125	UC000188
30.00 #3	40.00	5.00	8.00	304-030040080	UC000196
32.00 #1	47.00	7.50	12.50	304-032047125	UC000226
35.00 #3	50.00	7.50	12.50	304-035050125	UC000234
36.00 #2	44.00	4.00	6.30	304-036044063	UC000242
36.00 #1	51.00	7.50	12.50	304-036051125	UC000250
40.00 #1	55.00	7.50	12.50	304-040055125	UC000293
42.00 #4	50.00	4.00	6.30	304-042050063	UC000307
45.00 #2	53.00	4.00	6.30	304-045053063	UC000315
45.00 #1	60.00	7.50	12.50	304-04560125	UC000331

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
48.00 #3	63.00	7.50	12.50	304-048063125	UC000358
50.00 #1	65.00	7.50	12.50	304-050065125	UC000374
55.00 #4	63.00	4.00	6.30	304-055063063	UC000390
56.00 #2	66.00	5.00	7.50	304-056066075	UC000404
56.00 #1	76.00	10.00	16.00	304-056076160	UC000412
60.00 #3	80.00	10.00	16.00	304-060080160	UC000447
63.00 #1	83.00	10.00	16.00	304-063083160	UC000455
70.00 #2, #4	80.00	5.00	7.50	304-070080075	UC00048X
70.00 #1, #3	90.00	10.00	16.00	304-070090160	UC00051X
80.00 #1, #3	100.00	10.00	16.00	304-080100160	UC000536
90.00 #2, #4	100.00	5.00	7.50	304-090100075	UC000552
90.00 #1, #3	110.00	10.00	16.00	304-090110160	UC000560
100.00 #1, #3	125.00	12.50	20.00	304-100125200	UC000587
110.00 #2, #4	125.00	7.50	10.60	304-110125106	UC000595
110.00 #1	135.00	12.50	20.00	304-110135200	UC000617
125.00 #1	150.00	12.50	20.00	304-125150200	UC000625
135.00 #3	160.00	12.50	20.00	304-135160200	UC000633
140.00 #2	155.00	7.50	10.60	304-140155106	UC000641
140.00 #1	165.00	12.50	20.00	304-140165200	UC00065X
145.00 #4	160.00	7.50	10.60	304-145160106	UC000668
160.00 #1	190.00	15.00	25.00	304-160190250	UC000676
170.00 #3	200.00	15.00	25.00	304-170200250	UC000684
180.00 #1	210.00	15.00	25.00	304-180210250	UC000692
185.00 #4	200.00	7.50	10.60	304-185200106	UC000706
200.00 #1	230.00	15.00	25.00	304-200230250	UC000714
220.00 #1, #3	250.00	15.00	25.00	304-220250250	UC000722

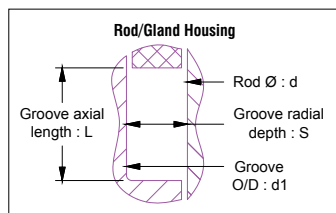
# Twinset — rod/gland & piston seals

## Twinset — JW Chart 440 NA (inch sizes)

### Rod/gland sealing applications

Seal sets for non-adjustable rod gland housings.

JW established inch (fraction) size range.



Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
5/16	11/16	3/16	7/16	440-NA-1	TX030017
3/8	3/4	3/16	7/16	440-NA-2	TX030025
7/16	13/16	3/16	7/16	440-NA-3	TX030033
1/2	7/8	3/16	7/16	440-NA-4	TX030041
9/16	15/16	3/16	7/16	440-NA-5	TX03005X
5/8	1	3/16	7/16	440-NA-6	TX030068
11/16	1 1/16	3/16	7/16	440-NA-7	TX030076
5/8	1 1/8	1/4	9/16	440-NA-8	TX030084
11/16	1 3/16	1/4	9/16	440-NA-9	TX030092
3/4	1 1/4	1/4	9/16	440-NA-10	TX030106
13/16	1 5/16	1/4	9/16	440-NA-11	TX030114
7/8	1 3/8	1/4	9/16	440-NA-12	TX030122
15/16	1 7/16	1/4	9/16	440-NA-13	TX030130
1	1 1/2	1/4	9/16	440-NA-14	TX030149
15/16	1 9/16	5/16	3/4	440-NA-15	TX030157
1	1 5/8	5/16	3/4	440-NA-16	TX030165
1 1/16	1 11/16	5/16	3/4	440-NA-17	TX030173
1 1/8	1 3/4	5/16	3/4	440-NA-18	TX030181
1 3/16	1 13/16	5/16	3/4	440-NA-19	TX03019X
1 1/4	1 7/8	5/16	3/4	440-NA-20	TX030203
1 5/16	1 15/16	5/16	3/4	440-NA-21	TX030211
1 3/8	2	5/16	3/4	440-NA-22	TX03022X
1 7/16	2 1/16	5/16	3/4	440-NA-23	TX030238
1 1/2	2 1/8	5/16	3/4	440-NA-24	TX030246
1 9/16	2 3/16	5/16	3/4	440-NA-25	TX030254
1 5/8	2 1/4	5/16	3/4	440-NA-26	TX030262
1 11/16	2 5/16	5/16	3/4	440-NA-27	TX030270
1 3/4	2 3/8	5/16	3/4	440-NA-28	TX030289
1 13/16	2 7/16	5/16	3/4	440-NA-29	TX030297
1 7/8	2 1/2	5/16	3/4	440-NA-30	TX030300
1 15/16	2 9/16	5/16	3/4	440-NA-31	TX030319

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
2	2 5/8	5/16	3/4	440-NA-32	TX030327
2	2 3/4	3/8	15/16	440-NA-33	TX030335
2 1/8	2 7/8	3/8	15/16	440-NA-34	TX030343
2 1/4	3	3/8	15/16	440-NA-35	TX030351
2 3/8	3 1/8	3/8	15/16	440-NA-36	TX03036X
2 1/2	3 1/4	3/8	15/16	440-NA-37	TX030378
2 5/8	3 3/8	3/8	15/16	440-NA-38	TX030386
2 3/4	3 1/2	3/8	15/16	440-NA-39	TX030394
2 7/8	3 5/8	3/8	15/16	440-NA-40	TX030408
3	3 3/4	3/8	15/16	440-NA-41	TX030416
3 1/8	3 7/8	3/8	15/16	440-NA-42	TX030424
3 1/4	4	3/8	15/16	440-NA-43	TX030432
3 3/8	4 1/8	3/8	15/16	440-NA-44	TX030440
3 1/2	4 1/4	3/8	15/16	440-NA-45	TX030459
3 3/8	4 3/8	1/2	1 1/4	440-NA-46	TX030467
3 1/2	4 1/2	1/2	1 1/4	440-NA-47	TX030475
3 5/8	4 5/8	1/2	1 1/4	440-NA-48	TX030483
3 3/4	4 3/4	1/2	1 1/4	440-NA-49	TX030491
3 7/8	4 7/8	1/2	1 1/4	440-NA-50	TX030505
4	5	1/2	1 1/4	440-NA-51	TX030513
4 1/8	5 1/8	1/2	1 1/4	440-NA-52	TX030521
4 1/4	5 1/4	1/2	1 1/4	440-NA-53	TX03053X
4 3/8	5 3/8	1/2	1 1/4	440-NA-54	TX030548
4 1/2	5 1/2	1/2	1 1/4	440-NA-55	TX030556
4 5/8	5 5/8	1/2	1 1/4	440-NA-56	TX030564
4 3/4	5 3/4	1/2	1 1/4	440-NA-57	TX030572
4 7/8	5 7/8	1/2	1 1/4	440-NA-58	TX030580
5	6	1/2	1 1/4	440-NA-59	TX030599
5 1/8	6 1/8	1/2	1 1/4	440-NA-60	TX030602
5 1/4	6 1/4	1/2	1 1/4	440-NA-61	TX030610
5 1/2	6 1/2	1/2	1 1/4	440-NA-62	TX030629
5 1/2	6 1/2	1/2	1 1/4	440-NA-63	TX030637
5 3/4	6 3/4	1/2	1 1/4	440-NA-64	TX030645
5 3/4	6 3/4	1/2	1 1/4	440-NA-65	TX030653
6	7	1/2	1 1/4	440-NA-66	TX030661
6	7	1/2	1 1/4	440-NA-67	TX03067X
6	7 1/4	5/8	1 1/2	440-NA-68	TX030688
6 1/4	7 1/2	5/8	1 1/2	440-NA-69	TX030696
6 1/2	7 3/4	5/8	1 1/2	440-NA-70	TX03070X
6 3/4	8	5/8	1 1/2	440-NA-71	TX030718
7	8 1/4	5/8	1 1/2	440-NA-72	TX030726
7 1/4	8 1/2	5/8	1 1/2	440-NA-73	TX030734

Continued...

## Twinset — rod/gland &amp; piston seals

## Twinset — JW Chart 440 NA (inch sizes) continued

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
7 1/2	8 3/4	5/8	1 1/2	440-NA-74	TX030742
7 3/4	9	5/8	1 1/2	440-NA-75	TX030750
8	9 1/4	5/8	1 1/2	440-NA-76	TX030769
8 1/4	9 1/2	5/8	1 1/2	440-NA-77	TX030777
8 1/2	9 3/4	5/8	1 1/2	440-NA-78	TX030785
8 3/4	10	5/8	1 1/2	440-NA-79	TX030793
9	10 1/4	5/8	1 1/2	440-NA-80	TX030807
9 1/4	10 1/2	5/8	1 1/2	440-NA-81	TX030815
9 1/2	10 3/4	5/8	1 1/2	440-NA-82	TX030823
9 3/4	11	5/8	1 1/2	440-NA-83	TX030831
10	11 1/4	5/8	1 1/2	440-NA-84	TX03084X
10 1/4	11 1/2	5/8	1 1/2	440-NA-85	TX030858
10 1/2	11 3/4	5/8	1 1/2	440-NA-86	TX030866
10 3/4	12	5/8	1 1/2	440-NA-87	TX030874
11	12 1/4	5/8	1 1/2	440-NA-88	TX030882
11 1/4	12 1/2	5/8	1 1/2	440-NA-89	TX030890
11 1/2	12 3/4	5/8	1 1/2	440-NA-90	TX030904
11 3/4	13	5/8	1 1/2	440-NA-91	TX030912
12	13 1/4	5/8	1 1/2	440-NA-92	TX030920
12 1/4	13 1/2	5/8	1 1/2	440-NA-93	TX030939
12 1/2	13 3/4	5/8	1 1/2	440-NA-94	TX030947
12 3/4	14	5/8	1 1/2	440-NA-95	TX030955
13	14 1/4	5/8	1 1/2	440-NA-96	TX030963
13 1/4	14 2/4	5/8	1 1/2	440-NA-97	TX030971
13 1/2	14 3/4	5/8	1 1/2	440-NA-98	TX03098X
13 3/4	15	5/8	1 1/2	440-NA-99	TX030998
14	15 1/4	5/8	1 1/2	440-NA-100	TX031005
14 1/4	15 1/2	5/8	1 1/2	440-NA-101	TX031013
14 1/2	15 3/4	5/8	1 1/2	440-NA-102	TX031021
14 3/4	16	5/8	1 1/2	440-NA-103	TX03103X
15	16 1/4	5/8	1 1/2	440-NA-104	TX031048
15 1/4	16 1/2	5/8	1 1/2	440-NA-105	TX031056
15 1/2	16 3/4	5/8	1 1/2	440-NA-106	TX031064
15 3/4	17	5/8	1 1/2	440-NA-107	TX031072
16	17 1/2	5/8	1 1/2	440-NA-108	TX031080
16	17 1/2	3/4	1 3/4	440-NA-109	TX031099
16 1/2	18	3/4	1 3/4	440-NA-110	TX031102
17	18 1/2	3/4	1 3/4	440-NA-111	TX031110
17 1/2	19	3/4	1 3/4	440-NA-112	TX031129
18	19 1/2	3/4	1 3/4	440-NA-113	TX031137
18 1/2	20	3/4	1 3/4	440-NA-114	TX031145

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
19	20 1/2	3/4	1 3/4	440-NA-115	TX031153
19 1/2	21	3/4	1 3/4	440-NA-116	TX031161
20	21 1/2	3/4	1 3/4	440-NA-117	TX03117X

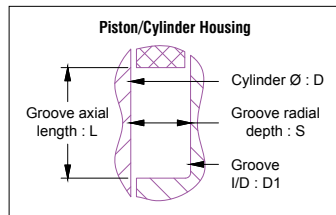
# Twinset — rod/gland & piston seals

## Twinset — JW Chart 440 PH (inch sizes)

### Piston/cylinder sealing applications

Single-acting seal sets for non-adjustable piston housings.

JW established inch (fraction) size range.



Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
11/16	5/16	3/16	7/16	440-PH-1	TX03201X
3/4	3/8	3/16	7/16	440-PH-2	TX032028
13/16	7/16	3/16	7/16	440-PH-3	TX032036
7/8	1/2	3/16	7/16	440-PH-4	TX032044
15/16	9/16	3/16	7/16	440-PH-5	TX032052
1	5/8	3/16	7/16	440-PH-6	TX032060
1 1/16	11/16	3/16	7/16	440-PH-7	TX032079
1 1/8	5/8	1/4	9/16	440-PH-8	TX032087
1 3/16	11/16	1/4	9/16	440-PH-9	TX032095
1 1/4	3/4	1/4	9/16	440-PH-10	TX032109
1 5/16	13/16	1/4	9/16	440-PH-11	TX032117
1 3/8	7/8	1/4	9/16	440-PH-12	TX032125
1 7/16	15/16	1/4	9/16	440-PH-13	TX032133
1 1/2	1	1/4	9/16	440-PH-14	TX032141
1 9/16	15/16	5/16	3/4	440-PH-15	TX03215X
1 5/8	1	5/16	3/4	440-PH-16	TX032168
1 11/16	1 1/16	5/16	3/4	440-PH-17	TX032176
1 3/4	1 1/8	5/16	3/4	440-PH-18	TX032184
1 13/16	1 3/16	5/16	3/4	440-PH-19	TX032192
1 7/8	1 1/4	5/16	3/4	440-PH-20	TX032206
1 15/16	1 5/16	5/16	3/4	440-PH-21	TX032214
2	1 3/8	5/16	3/4	440-PH-22	TX032222
2 1/16	1 7/16	5/16	3/4	440-PH-23	TX032230
2 1/8	1 1/2	5/16	3/4	440-PH-24	TX032249
2 3/16	1 9/16	5/16	3/4	440-PH-25	TX032257
2 1/4	1 5/8	5/16	3/4	440-PH-26	TX032265
2 5/16	1 11/16	5/16	3/4	440-PH-27	TX032273
2 3/8	1 3/4	5/16	3/4	440-PH-28	TX032281
2 7/16	1 13/16	5/16	3/4	440-PH-29	TX03229X
2 1/2	1 7/8	5/16	3/4	440-PH-30	TX032303
2 9/16	1 15/16	5/16	3/4	440-PH-31	TX032311

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
2 5/8	2	5/16	3/4	440-PH-32	TX03232X
2 3/4	2	3/8	15/16	440-PH-33	TX032338
2 7/8	2 1/8	3/8	15/16	440-PH-34	TX032346
3	2 1/4	3/8	15/16	440-PH-35	TX032354
3 1/8	2 3/8	3/8	15/16	440-PH-36	TX032362
3 1/4	2 1/2	3/8	15/16	440-PH-37	TX032370
3 3/8	2 5/8	3/8	15/16	440-PH-38	TX032389
3 1/2	2 3/4	3/8	15/16	440-PH-39	TX032397
3 5/8	2 7/8	3/8	15/16	440-PH-40	TX032400
3 3/4	3	3/8	15/16	440-PH-41	TX032419
3 7/8	3 1/8	3/8	15/16	440-PH-42	TX032427
4	3 1/4	3/8	15/16	440-PH-43	TX032435
4 1/8	3 3/8	3/8	15/16	440-PH-44	TX032443
4 1/4	3 1/2	3/8	15/16	440-PH-45	TX032451
4 3/8	3 3/8	1/2	1 1/4	440-PH-46	TX03246X
4 1/2	3 2/4	1/2	1 1/4	440-PH-47	TX032478
4 5/8	3 5/8	1/2	1 1/4	440-PH-48	TX032486
4 3/4	3 3/4	1/2	1 1/4	440-PH-49	TX032494
4 7/8	3 7/8	1/2	1 1/4	440-PH-50	TX032508
5	4	1/2	1 1/4	440-PH-51	TX032516
5 1/8	4 1/8	1/2	1 1/4	440-PH-52	TX032524
5 1/4	4 1/4	1/2	1 1/4	440-PH-53	TX032532
5 3/8	4 3/8	1/2	1 1/4	440-PH-54	TX032540
5 1/2	4 1/2	1/2	1 1/4	440-PH-55	TX032559
5 5/8	4 5/8	1/2	1 1/4	440-PH-56	TX032567
5 3/4	4 3/4	1/2	1 1/4	440-PH-57	TX032575
5 7/8	4 7/8	1/2	1 1/4	440-PH-58	TX032583
6	5	1/2	1 1/4	440-PH-59	TX032591
6 1/8	5 1/8	1/2	1 1/4	440-PH-60	TX032605
6 1/4	5 1/4	1/2	1 1/4	440-PH-61	TX032613
6 3/8	5 3/8	1/2	1 1/4	440-PH-62	TX032621
6 1/2	5 1/2	1/2	1 1/4	440-PH-63	TX03263X
6 5/8	5 5/8	1/2	1 1/4	440-PH-64	TX032648
6 3/4	5 3/4	1/2	1 1/4	440-PH-65	TX032656
6 7/8	5 7/8	1/2	1 1/4	440-PH-66	TX032664
7	6	1/2	1 1/4	440-PH-67	TX032672
7 1/4	6	5/8	1 1/2	440-PH-68	TX032680
7 1/2	6 1/4	5/8	1 1/2	440-PH-69	TX032699
7 3/4	6 1/2	5/8	1 1/2	440-PH-70	TX032702
8	6 3/4	5/8	1 1/2	440-PH-71	TX032710
8 1/4	7	5/8	1 1/2	440-PH-72	TX032729

Continued...

## Twinset — rod/gland &amp; piston seals

## Twinset — JW Chart 440 PH (inch sizes) continued

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
8 1/2	7 1/4	5/8	1 1/2	440-PH-73	TX032737
8 3/4	7 1/2	5/8	1 1/2	440-PH-74	TX032745
9	7 3/4	5/8	1 1/2	440-PH-75	TX032753
9 1/4	8	5/8	1 1/2	440-PH-76	TX032761
9 1/2	8 1/4	5/8	1 1/2	440-PH-77	TX03277X
9 3/4	8 1/2	5/8	1 1/2	440-PH-78	TX032788
10	8 3/4	5/8	1 1/2	440-PH-79	TX032796
10 1/4	9	5/8	1 1/2	440-PH-80	TX03280X
10 1/2	9 1/4	5/8	1 1/2	440-PH-81	TX032818
10 3/4	9 1/2	5/8	1 1/2	440-PH-82	TX032826
11	9 3/4	5/8	1 1/2	440-PH-83	TX032834
11 1/4	10	5/8	1 1/2	440-PH-84	TX032842
11 1/2	10 1/4	5/8	1 1/2	440-PH-85	TX032850
11 3/4	10 1/2	5/8	1 1/2	440-PH-86	TX032869
12	10 3/4	5/8	1 1/2	440-PH-87	TX032877
12 1/4	11	5/8	1 1/2	440-PH-88	TX032885
12 1/2	11 1/4	5/8	1 1/2	440-PH-89	TX032893
12 3/4	11 1/2	5/8	1 1/2	440-PH-90	TX032907
13	11 3/4	5/8	1 1/2	440-PH-91	TX032915
13 1/4	12	5/8	1 1/2	440-PH-92	TX032923
13 1/2	12 1/4	5/8	1 1/2	440-PH-93	TX032931
13 3/4	12 1/2	5/8	1 1/2	440-PH-94	TX03294X
14	12 3/4	5/8	1 1/2	440-PH-95	TX032958
14 1/4	13	5/8	1 1/2	440-PH-96	TX032966
14 1/2	13 1/4	5/8	1 1/2	440-PH-97	TX032974
14 3/4	13 1/2	5/8	1 1/2	440-PH-98	TX032982
15	13 3/4	5/8	1 1/2	440-PH-99	TX032990
15 1/4	14	5/8	1 1/2	440-PH-100	TX033008
15 1/2	14 1/4	5/8	1 1/2	440-PH-101	TX033016
15 3/4	14 1/2	5/8	1 1/2	440-PH-102	TX033024
16	14 3/4	5/8	1 1/2	440-PH-103	TX033032
16 1/4	15	5/8	1 1/2	440-PH-104	TX033040
16 1/2	15 1/4	5/8	1 1/2	440-PH-105	TX033059
16 3/4	15 1/2	5/8	1 1/2	440-PH-106	TX033067
17	15 3/4	5/8	1 1/2	440-PH-107	TX033075
17 1/4	16	5/8	1 1/2	440-PH-108	TX033083
17 1/2	16	3/4	1 3/4	440-PH-109	TX033091
18	16 1/2	3/4	1 3/4	440-PH-110	TX033105
18 1/2	17	3/4	1 3/4	440-PH-111	TX033113
19	17 1/2	3/4	1 3/4	440-PH-112	TX033121

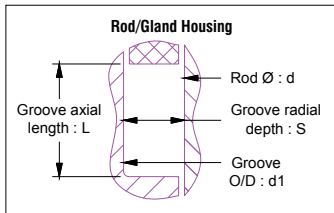
Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
19 1/2	18	3/4	1 3/4	440-PH-113	TX03313X
20	18 1/2	3/4	1 3/4	440-PH-114	TX033148
20 1/2	19	3/4	1 3/4	440-PH-115	TX033156
21	19 1/2	3/4	1 3/4	440-PH-116	TX033164
21 1/2	20	3/4	1 3/4	440-PH-117	TX033172

# Twinset — rod/gland & piston seals

## Twinset — JW Chart 440 SL (inch sizes)

### Rod/gland sealing applications

Seal sets with spring-loaded headers for use in non-adjustable rod gland housings.  
JW established inch (fraction) size range.



Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
5/8	1 1/8	1/4	9/16	440-SL-8	TX044085
11/16	1 3/16	1/4	9/16	440-SL-9	TX044093
3/4	1 1/4	1/4	9/16	440-SL-10	TX044107
13/16	1 5/16	1/4	9/16	440-SL-11	TX044115
7/8	1 3/8	1/4	9/16	440-SL-12	TX044123
15/16	1 7/16	1/4	9/16	440-SL-13	TX044131
1	1 1/2	1/4	9/16	440-SL-14	TX04414X
15/16	1 9/16	5/16	3/4	440-SL-15	TX044158
1	1 5/8	5/16	3/4	440-SL-16	TX044166
1 1/16	1 11/16	5/16	3/4	440-SL-17	TX044174
1 1/8	1 3/4	5/16	3/4	440-SL-18	TX044182
1 3/16	1 13/16	5/16	3/4	440-SL-19	TX044190
1 1/4	1 7/8	5/16	3/4	440-SL-20	TX044204
1 5/16	1 15/16	5/16	3/4	440-SL-21	TX044212
1 3/8	2	5/16	3/4	440-SL-22	TX044220
1 7/16	2 1/16	5/16	3/4	440-SL-23	TX044239
1 1/2	2 1/8	5/16	3/4	440-SL-24	TX044247
1 9/16	2 3/16	5/16	3/4	440-SL-25	TX044255
1 5/8	2 1/4	5/16	3/4	440-SL-26	TX044263
1 11/16	2 5/16	5/16	3/4	440-SL-27	TX044271
1 3/4	2 3/8	5/16	3/4	440-SL-28	TX04428X
1 13/16	2 7/16	5/16	3/4	440-SL-29	TX044298
1 7/8	2 1/2	5/16	3/4	440-SL-30	TX044301
1 15/16	2 9/16	5/16	3/4	440-SL-31	TX04431X
2	2 5/8	5/16	3/4	440-SL-32	TX044328
2	2 6/8	3/8	15/16	440-SL-33	TX044336
2 1/8	2 7/8	3/8	15/16	440-SL-34	TX044344
2 1/4	3	3/8	15/16	440-SL-35	TX044352
2 3/8	3 1/8	3/8	15/16	440-SL-36	TX044360
2 1/2	3 1/4	3/8	15/16	440-SL-37	TX044379
2 5/8	3 3/8	3/8	15/16	440-SL-38	TX044387

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
2 3/4	3 1/2	3/8	15/16	440-SL-39	TX044395
2 7/8	3 5/8	3/8	15/16	440-SL-40	TX044409
3	3 6/8	3/8	15/16	440-SL-41	TX044417
3 1/8	3 7/8	3/8	15/16	440-SL-42	TX044425
3 1/4	4	3/8	15/16	440-SL-43	TX044433
3 3/8	4 1/8	3/8	15/16	440-SL-44	TX044441
3 1/2	4 1/4	3/8	15/16	440-SL-45	TX04445X
3 3/8	4 3/8	1/2	1 1/4	440-SL-46	TX044468
3 1/2	4 1/2	1/2	1 1/4	440-SL-47	TX044476
3 5/8	4 5/8	1/2	1 1/4	440-SL-48	TX044484
3 3/4	4 3/4	1/2	1 1/4	440-SL-49	TX044492
3 7/8	4 7/8	1/2	1 1/4	440-SL-50	TX044506
4	5	1/2	1 1/4	440-SL-51	TX044514
4 1/8	5 1/8	1/2	1 1/4	440-SL-52	TX044522
4 1/4	5 1/4	1/2	1 1/4	440-SL-53	TX044530
4 3/8	5 3/8	1/2	1 1/4	440-SL-54	TX044549
4 2/4	5 2/4	1/2	1 1/4	440-SL-55	TX044557
4 5/8	5 5/8	1/2	1 1/4	440-SL-56	TX044565
4 3/4	5 3/4	1/2	1 1/4	440-SL-57	TX044573
4 7/8	5 7/8	1/2	1 1/4	440-SL-58	TX044581
5	6	1/2	1 1/4	440-SL-59	TX04459X
5 1/8	6 1/8	1/2	1 1/4	440-SL-60	TX044603
5 1/4	6 1/4	1/2	1 1/4	440-SL-61	TX044611
5 3/8	6 3/8	1/2	1 1/4	440-SL-62	TX04462X
5 2/4	6 2/4	1/2	1 1/4	440-SL-63	TX044638
5 5/8	6 5/8	1/2	1 1/4	440-SL-64	TX044646
5 3/4	6 3/4	1/2	1 1/4	440-SL-65	TX044654
5 7/8	6 7/8	1/2	1 1/4	440-SL-66	TX044662
6	7	1/2	1 1/4	440-SL-67	TX044670
6	7 1/4	5/8	1 1/2	440-SL-68	TX044689
6 1/4	7 1/2	5/8	1 1/2	440-SL-69	TX044697
6 1/2	7 3/4	5/8	1 1/2	440-SL-70	TX044700
6 3/4	8	5/8	1 1/2	440-SL-71	TX044719
7	8 1/4	5/8	1 1/2	440-SL-72	TX044727
7 1/4	8 1/2	5/8	1 1/2	440-SL-73	TX044735
7 1/2	8 3/4	5/8	1 1/2	440-SL-74	TX044743
7 3/4	9	5/8	1 1/2	440-SL-75	TX044751
8	9 1/4	5/8	1 1/2	440-SL-76	TX04476X
8 1/4	9 1/2	5/8	1 1/2	440-SL-77	TX044778
8 1/2	9 3/4	5/8	1 1/2	440-SL-78	TX044786
8 3/4	10	5/8	1 1/2	440-SL-79	TX044794

Continued...

## Twinset — rod/gland &amp; piston seals

## Twinset — JW Chart 440 SL (inch sizes) continued

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
9	10 1/4	5/8	1 1/2	440-SL-80	TX044808
9 1/4	10 1/2	5/8	1 1/2	440-SL-81	TX044816
9 1/2	10 3/4	5/8	1 1/2	440-SL-82	TX044824
9 3/4	11	5/8	1 1/2	440-SL-83	TX044832
10	11 1/4	5/8	1 1/2	440-SL-84	TX044840
10 1/4	11 1/2	5/8	1 1/2	440-SL-85	TX044859
10 1/2	11 3/4	5/8	1 1/2	440-SL-86	TX044867
10 3/4	12	5/8	1 1/2	440-SL-87	TX044875
11	12 1/4	5/8	1 1/2	440-SL-88	TX044883
11 1/4	12 1/2	5/8	1 1/2	440-SL-89	TX044891
11 1/2	12 3/4	5/8	1 1/2	440-SL-90	TX044905
11 3/4	13	5/8	1 1/2	440-SL-91	TX044913
12	13 1/4	5/8	1 1/2	440-SL-92	TX044921
12 1/4	13 1/2	5/8	1 1/2	440-SL-93	TX04493X
12 1/2	13 3/4	5/8	1 1/2	440-SL-94	TX044948
12 3/4	14	5/8	1 1/2	440-SL-95	TX044956
13	14 1/4	5/8	1 1/2	440-SL-96	TX044964
13 1/4	14 1/2	5/8	1 1/2	440-SL-97	TX044972
13 1/2	14 3/4	5/8	1 1/2	440-SL-98	TX044980
13 3/4	15	5/8	1 1/2	440-SL-99	TX044999
14	15 1/4	5/8	1 1/2	440-SL-100	TX045006
14 1/4	15 1/2	5/8	1 1/2	440-SL-101	TX045014
14 1/2	15 3/4	5/8	1 1/2	440-SL-102	TX045022
14 3/4	16	5/8	1 1/2	440-SL-103	TX045030
15	16 1/4	5/8	1 1/2	440-SL-104	TX045049
15 1/4	16 1/2	5/8	1 1/2	440-SL-105	TX045057
15 1/2	16 3/4	5/8	1 1/2	440-SL-106	TX045065
15 3/4	17	5/8	1 1/2	440-SL-107	TX045073
16	17 1/4	5/8	1 1/2	440-SL-108	TX045081
16	17 1/2	3/4	1 3/4	440-SL-109	TX04509X
16 1/2	18	3/4	1 3/4	440-SL-110	TX045103
17	18 1/2	3/4	1 3/4	440-SL-111	TX045111
17 1/2	19	3/4	1 3/4	440-SL-112	TX04512X
18	19 1/2	3/4	1 3/4	440-SL-113	TX045138
18 1/2	20	3/4	1 3/4	440-SL-114	TX045146
19	20 1/2	3/4	1 3/4	440-SL-115	TX045154
19 1/2	21	3/4	1 3/4	440-SL-116	TX045162
20	21 1/2	3/4	1 3/4	440-SL-117	TX045170

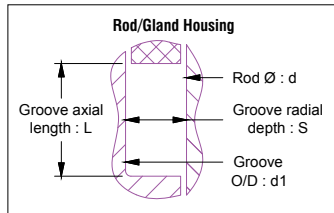
# Twinset — rod/gland & piston seals

## Twinset — JW Chart 441 NA

### Rod/gland sealing applications

Seal sets for non-adjustable rod gland housings.

JW established metric (mm) size range.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
8.00	18.00	5.00	11.00	441-NA-1	TX040012
9.00	19.00	5.00	11.00	441-NA-2	TX040020
10.00	20.00	5.00	11.00	441-NA-3	TX040039
11.00	21.00	5.00	11.00	441-NA-4	TX040047
12.00	22.00	5.00	11.00	441-NA-5	TX040055
13.00	23.00	5.00	11.00	441-NA-6	TX040063
14.00	24.00	5.00	11.00	441-NA-7	TX040071
15.00	25.00	5.00	11.00	441-NA-8	TX04008X
13.00	26.00	6.50	14.00	441-NA-9	TX040098
14.00	27.00	6.50	14.00	441-NA-10	TX040101
15.00	28.00	6.50	14.00	441-NA-11	TX04011X
16.00	29.00	6.50	14.00	441-NA-12	TX040128
17.00	30.00	6.50	14.00	441-NA-13	TX040136
18.00	31.00	6.50	14.00	441-NA-14	TX040144
19.00	32.00	6.50	14.00	441-NA-15	TX040152
20.00	33.00	6.50	14.00	441-NA-16	TX040160
21.00	34.00	6.50	14.00	441-NA-17	TX040179
22.00	35.00	6.50	14.00	441-NA-18	TX040187
23.00	36.00	6.50	14.00	441-NA-19	TX040195
24.00	37.00	6.50	14.00	441-NA-20	TX040209
25.00	38.00	6.50	14.00	441-NA-21	TX040217
23.00	39.00	8.00	20.00	441-NA-22	TX040225
24.00	40.00	8.00	20.00	441-NA-23	TX040233
25.00	41.00	8.00	20.00	441-NA-24	TX040241
26.00	42.00	8.00	20.00	441-NA-25	TX04025X
27.00	43.00	8.00	20.00	441-NA-26	TX040268
28.00	44.00	8.00	20.00	441-NA-27	TX040276
29.00	45.00	8.00	20.00	441-NA-28	TX040284
30.00	46.00	8.00	20.00	441-NA-29	TX040292
31.00	47.00	8.00	20.00	441-NA-30	TX040306
32.00	48.00	8.00	20.00	441-NA-31	TX040314

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
33.00	49.00	8.00	20.00	441-NA-32	TX040322
34.00	50.00	8.00	20.00	441-NA-33	TX040330
35.00	51.00	8.00	20.00	441-NA-34	TX040349
36.00	52.00	8.00	20.00	441-NA-35	TX040357
37.00	53.00	8.00	20.00	441-NA-36	TX040365
38.00	54.00	8.00	20.00	441-NA-37	TX040373
39.00	55.00	8.00	20.00	441-NA-38	TX040381
40.00	56.00	8.00	20.00	441-NA-39	TX04039X
41.00	57.00	8.00	20.00	441-NA-40	TX040403
42.00	58.00	8.00	20.00	441-NA-41	TX040411
43.00	59.00	8.00	20.00	441-NA-42	TX04042X
44.00	60.00	8.00	20.00	441-NA-43	TX040438
45.00	61.00	8.00	20.00	441-NA-44	TX040446
46.00	62.00	8.00	20.00	441-NA-45	TX040454
47.00	63.00	8.00	20.00	441-NA-46	TX040462
48.00	64.00	8.00	20.00	441-NA-47	TX040470
49.00	65.00	8.00	20.00	441-NA-48	TX040489
50.00	66.00	8.00	20.00	441-NA-49	TX040497
50.00	70.00	10.00	24.00	441-NA-50	TX040500
52.00	72.00	10.00	24.00	441-NA-51	TX040519
55.00	75.00	10.00	24.00	441-NA-52	TX040527
56.00	76.00	10.00	24.00	441-NA-52A	TX040535
57.00	77.00	10.00	24.00	441-NA-53	TX040543
60.00	80.00	10.00	24.00	441-NA-54	TX040551
62.00	82.00	10.00	24.00	441-NA-55	TX04056X
63.00	83.00	10.00	24.00	441-NA-55A	TX040578
65.00	85.00	10.00	24.00	441-NA-56	TX040586
67.00	87.00	10.00	24.00	441-NA-57	TX040594
70.00	90.00	10.00	24.00	441-NA-58	TX040608
72.00	92.00	10.00	24.00	441-NA-59	TX040616
75.00	95.00	10.00	24.00	441-NA-60	TX040624
77.00	97.00	10.00	24.00	441-NA-61	TX040632
80.00	100.00	10.00	24.00	441-NA-62	TX040640
82.00	102.00	10.00	24.00	441-NA-63	TX040659
85.00	105.00	10.00	24.00	441-NA-64	TX040667
87.00	107.00	10.00	24.00	441-NA-65	TX040675
90.00	110.00	10.00	24.00	441-NA-66	TX040683
90.00	115.00	12.50	32.00	441-NA-67	TX040691
95.00	120.00	12.50	32.00	441-NA-68	TX040705
100.00	125.00	12.50	32.00	441-NA-69	TX040713
105.00	130.00	12.50	32.00	441-NA-70	TX040721

Continued...



## Twinset — rod/gland &amp; piston seals

## Twinset — JW Chart 441 NA continued

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
110.00	135.00	12.50	32.00	441-NA-71	TX04073X
115.00	140.00	12.50	32.00	441-NA-72	TX040748
120.00	145.00	12.50	32.00	441-NA-73	TX040756
125.00	150.00	12.50	32.00	441-NA-74	TX040764
130.00	155.00	12.50	32.00	441-NA-75	TX040772
135.00	160.00	12.50	32.00	441-NA-76	TX040780
140.00	165.00	12.50	32.00	441-NA-77	TX040799
145.00	170.00	12.50	32.00	441-NA-78	TX040802
150.00	175.00	12.50	32.00	441-NA-79	TX040810
150.00	180.00	15.00	38.00	441-NA-80	TX040829
155.00	185.00	15.00	38.00	441-NA-81	TX040837
160.00	190.00	15.00	38.00	441-NA-82	TX040845
165.00	195.00	15.00	38.00	441-NA-83	TX040853
170.00	200.00	15.00	38.00	441-NA-84	TX040861
175.00	205.00	15.00	38.00	441-NA-85	TX04087X
180.00	210.00	15.00	38.00	441-NA-86	TX040888
185.00	215.00	15.00	38.00	441-NA-87	TX040896
190.00	220.00	15.00	38.00	441-NA-88	TX04090X
195.00	225.00	15.00	38.00	441-NA-89	TX040918
200.00	230.00	15.00	38.00	441-NA-90	TX040926
205.00	235.00	15.00	38.00	441-NA-91	TX040934
210.00	240.00	15.00	38.00	441-NA-92	TX040942
215.00	245.00	15.00	38.00	441-NA-93	TX040950
220.00	250.00	15.00	38.00	441-NA-94	TX040969
225.00	255.00	15.00	38.00	441-NA-95	TX040977
230.00	260.00	15.00	38.00	441-NA-96	TX040985
235.00	265.00	15.00	38.00	441-NA-97	TX040993
240.00	270.00	15.00	38.00	441-NA-98	TX041000
245.00	275.00	15.00	38.00	441-NA-99	TX041019
250.00	280.00	15.00	38.00	441-NA-100	TX041027
255.00	285.00	15.00	38.00	441-NA-101	TX041035
260.00	290.00	15.00	38.00	441-NA-102	TX041043
265.00	295.00	15.00	38.00	441-NA-103	TX041051
270.00	300.00	15.00	38.00	441-NA-104	TX04106X
280.00	310.00	15.00	38.00	441-NA-105	TX041078
290.00	320.00	15.00	38.00	441-NA-106	TX041086
300.00	330.00	15.00	38.00	441-NA-107	TX041094
310.00	340.00	15.00	38.00	441-NA-108	TX041108
320.00	350.00	15.00	38.00	441-NA-109	TX041116
330.00	360.00	15.00	38.00	441-NA-110	TX041124

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
340.00	370.00	15.00	38.00	441-NA-111	TX041132
350.00	380.00	15.00	38.00	441-NA-112	TX041140
360.00	390.00	15.00	38.00	441-NA-113	TX041159
370.00	400.00	15.00	38.00	441-NA-114	TX041167
380.00	410.00	15.00	38.00	441-NA-115	TX041175
390.00	420.00	15.00	38.00	441-NA-116	TX041183
400.00	430.00	15.00	38.00	441-NA-117	TX041191
400.00	440.00	20.00	47.00	441-NA-118	TX041205
410.00	450.00	20.00	47.00	441-NA-119	TX041213
420.00	460.00	20.00	47.00	441-NA-120	TX041221
430.00	470.00	20.00	47.00	441-NA-121	TX04123X
440.00	480.00	20.00	47.00	441-NA-122	TX041248
450.00	490.00	20.00	47.00	441-NA-123	TX041256
460.00	500.00	20.00	47.00	441-NA-124	TX041264
470.00	510.00	20.00	47.00	441-NA-125	TX041272
480.00	520.00	20.00	47.00	441-NA-126	TX041280
490.00	530.00	20.00	47.00	441-NA-127	TX041299
500.00	540.00	20.00	47.00	441-NA-128	TX041302

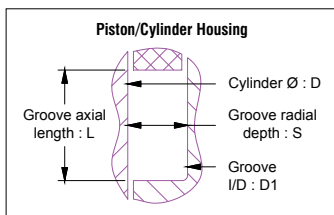
# Twinset — rod/gland & piston seals

## Twinset — JW Chart 441 PH

### Piston/cylinder sealing applications

Seal sets for non-adjustable piston housings.

JW established metric (mm) size range.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
18.00	8.00	5.00	11.00	441-PH-1	TX042015
19.00	9.00	5.00	11.00	441-PH-2	TX042023
20.00	10.00	5.00	11.00	441-PH-3	TX042031
21.00	11.00	5.00	11.00	441-PH-4	TX04204X
22.00	12.00	5.00	11.00	441-PH-5	TX042058
23.00	13.00	5.00	11.00	441-PH-6	TX042066
24.00	14.00	5.00	11.00	441-PH-7	TX042074
25.00	15.00	5.00	11.00	441-PH-8	TX042082
26.00	13.00	6.50	14.00	441-PH-9	TX042090
27.00	14.00	6.50	14.00	441-PH-10	TX042104
28.00	15.00	6.50	14.00	441-PH-11	TX042112
29.00	16.00	6.50	14.00	441-PH-12	TX042120
30.00	17.00	6.50	14.00	441-PH-13	TX042139
31.00	18.00	6.50	14.00	441-PH-14	TX042147
32.00	19.00	6.50	14.00	441-PH-15	TX042155
33.00	20.00	6.50	14.00	441-PH-16	TX042163
34.00	21.00	6.50	14.00	441-PH-17	TX042171
35.00	22.00	6.50	14.00	441-PH-18	TX04218X
36.00	23.00	6.50	14.00	441-PH-19	TX042198
37.00	24.00	6.50	14.00	441-PH-20	TX042201
38.00	25.00	6.50	14.00	441-PH-21	TX04221X
39.00	23.00	8.00	20.00	441-PH-22	TX042228
40.00	24.00	8.00	20.00	441-PH-23	TX042236
41.00	25.00	8.00	20.00	441-PH-24	TX042244
42.00	26.00	8.00	20.00	441-PH-25	TX042252
43.00	27.00	8.00	20.00	441-PH-26	TX042260
44.00	28.00	8.00	20.00	441-PH-27	TX042279
45.00	29.00	8.00	20.00	441-PH-28	TX042287
46.00	30.00	8.00	20.00	441-PH-29	TX042295
47.00	31.00	8.00	20.00	441-PH-30	TX042309
48.00	32.00	8.00	20.00	441-PH-31	TX042317

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
49.00	33.00	8.00	20.00	441-PH-32	TX042325
50.00	34.00	8.00	20.00	441-PH-33	TX042333
51.00	35.00	8.00	20.00	441-PH-34	TX042341
52.00	36.00	8.00	20.00	441-PH-35	TX04235X
53.00	37.00	8.00	20.00	441-PH-36	TX042368
54.00	38.00	8.00	20.00	441-PH-37	TX042376
55.00	39.00	8.00	20.00	441-PH-38	TX042384
56.00	40.00	8.00	20.00	441-PH-39	TX042392
57.00	41.00	8.00	20.00	441-PH-40	TX042406
58.00	42.00	8.00	20.00	441-PH-41	TX042414
59.00	43.00	8.00	20.00	441-PH-42	TX042422
60.00	44.00	8.00	20.00	441-PH-43	TX042430
61.00	45.00	8.00	20.00	441-PH-44	TX042449
62.00	46.00	8.00	20.00	441-PH-45	TX042457
63.00	47.00	8.00	20.00	441-PH-46	TX042465
64.00	48.00	8.00	20.00	441-PH-47	TX042473
65.00	49.00	8.00	20.00	441-PH-48	TX042481
66.00	50.00	8.00	20.00	441-PH-49	TX04249X
70.00	50.00	10.00	24.00	441-PH-50	TX042503
72.00	52.00	10.00	24.00	441-PH-51	TX042511
75.00	55.00	10.00	24.00	441-PH-52	TX04252X
76.00	56.00	10.00	24.00	441-PH-52A	TX042538
77.00	57.00	10.00	24.00	441-PH-53	TX042546
80.00	60.00	10.00	24.00	441-PH-54	TX042554
82.00	62.00	10.00	24.00	441-PH-55	TX042562
83.00	63.00	10.00	24.00	441-PH-55A	TX042570
85.00	65.00	10.00	24.00	441-PH-56	TX042589
87.00	67.00	10.00	24.00	441-PH-57	TX042597
90.00	70.00	10.00	24.00	441-PH-58	TX042600
92.00	72.00	10.00	24.00	441-PH-59	TX042619
95.00	75.00	10.00	24.00	441-PH-60	TX042627
97.00	77.00	10.00	24.00	441-PH-61	TX042635
100.00	80.00	10.00	24.00	441-PH-62	TX042643
102.00	82.00	10.00	24.00	441-PH-63	TX042651
105.00	85.00	10.00	24.00	441-PH-64	TX04266X
107.00	87.00	10.00	24.00	441-PH-65	TX042678
110.00	90.00	10.00	24.00	441-PH-66	TX042686
115.00	90.00	12.50	32.00	441-PH-67	TX042694
120.00	95.00	12.50	32.00	441-PH-68	TX042708
125.00	100.00	12.50	32.00	441-PH-69	TX042716
130.00	105.00	12.50	32.00	441-PH-70	TX042724
135.00	110.00	12.50	32.00	441-PH-71	TX042732

Continued...

## Twinset — rod/gland &amp; piston seals

## Twinset — JW Chart 441 PH continued

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
140.00	115.00	12.50	32.00	441-PH-72	TX042740
145.00	120.00	12.50	32.00	441-PH-73	TX042759
150.00	125.00	12.50	32.00	441-PH-74	TX042767
155.00	130.00	12.50	32.00	441-PH-75	TX042775
160.00	135.00	12.50	32.00	441-PH-76	TX042783
165.00	140.00	12.50	32.00	441-PH-77	TX042791
170.00	145.00	12.50	32.00	441-PH-78	TX042805
175.00	150.00	12.50	32.00	441-PH-79	TX042813
180.00	150.00	15.00	38.00	441-PH-80	TX042821
185.00	155.00	15.00	38.00	441-PH-81	TX04283X
190.00	160.00	15.00	38.00	441-PH-82	TX042848
195.00	165.00	15.00	38.00	441-PH-83	TX042856
200.00	170.00	15.00	38.00	441-PH-84	TX042864
205.00	175.00	15.00	38.00	441-PH-85	TX042872
210.00	180.00	15.00	38.00	441-PH-86	TX042880
215.00	185.00	15.00	38.00	441-PH-87	TX042899
220.00	190.00	15.00	38.00	441-PH-88	TX042902
225.00	195.00	15.00	38.00	441-PH-89	TX042910
230.00	200.00	15.00	38.00	441-PH-90	TX042929
235.00	205.00	15.00	38.00	441-PH-91	TX042937
240.00	210.00	15.00	38.00	441-PH-92	TX042945
245.00	215.00	15.00	38.00	441-PH-93	TX042953
250.00	220.00	15.00	38.00	441-PH-94	TX042961
255.00	225.00	15.00	38.00	441-PH-95	TX04297X
260.00	230.00	15.00	38.00	441-PH-96	TX042988
265.00	235.00	15.00	38.00	441-PH-97	TX042996
270.00	240.00	15.00	38.00	441-PH-98	TX043003
275.00	245.00	15.00	38.00	441-PH-99	TX043011
280.00	250.00	15.00	38.00	441-PH-100	TX04302X
285.00	255.00	15.00	38.00	441-PH-101	TX043038
290.00	260.00	15.00	38.00	441-PH-102	TX043046
295.00	265.00	15.00	38.00	441-PH-103	TX043054
300.00	270.00	15.00	38.00	441-PH-104	TX043062
310.00	280.00	15.00	38.00	441-PH-105	TX043070
320.00	290.00	15.00	38.00	441-PH-106	TX043089
330.00	300.00	15.00	38.00	441-PH-107	TX043097
340.00	310.00	15.00	38.00	441-PH-108	TX043100
350.00	320.00	15.00	38.00	441-PH-109	TX043119
360.00	330.00	15.00	38.00	441-PH-110	TX043127
370.00	340.00	15.00	38.00	441-PH-111	TX043135
380.00	350.00	15.00	38.00	441-PH-112	TX043143

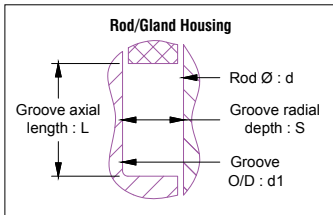
Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
390.00	360.00	15.00	38.00	441-PH-113	TX043151
400.00	370.00	15.00	38.00	441-PH-114	TX04316X
410.00	380.00	15.00	38.00	441-PH-115	TX043178
420.00	390.00	15.00	38.00	441-PH-116	TX043186
430.00	400.00	15.00	38.00	441-PH-117	TX043194
440.00	400.00	20.00	47.00	441-PH-118	TX043208
450.00	410.00	20.00	47.00	441-PH-119	TX043216
460.00	420.00	20.00	47.00	441-PH-120	TX043224
470.00	430.00	20.00	47.00	441-PH-121	TX043232
480.00	440.00	20.00	47.00	441-PH-122	TX043240
490.00	450.00	20.00	47.00	441-PH-123	TX043259
500.00	460.00	20.00	47.00	441-PH-124	TX043267
510.00	470.00	20.00	47.00	441-PH-125	TX043275
520.00	480.00	20.00	47.00	441-PH-126	TX043283
530.00	490.00	20.00	47.00	441-PH-127	TX043291
540.00	500.00	20.00	47.00	441-PH-128	TX043305

# Twinset — rod/gland & piston seals

## Twinset — JW Chart 441 SL

### Rod/gland sealing applications

Seal sets with spring-loaded headers for use in non-adjustable rod gland housings.  
JW established metric (mm) size range.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
13.00	26.00	6.50	14.00	441-SL-9	TX046096
14.00	27.00	6.50	14.00	441-SL-10	TX04610X
15.00	28.00	6.50	14.00	441-SL-11	TX046118
16.00	29.00	6.50	14.00	441-SL-12	TX046126
17.00	30.00	6.50	14.00	441-SL-13	TX046134
18.00	31.00	6.50	14.00	441-SL-14	TX046142
19.00	32.00	6.50	14.00	441-SL-15	TX046150
20.00	33.00	6.50	14.00	441-SL-16	TX046169
21.00	34.00	6.50	14.00	441-SL-17	TX046177
22.00	35.00	6.50	14.00	441-SL-18	TX046185
23.00	36.00	6.50	14.00	441-SL-19	TX046193
24.00	37.00	6.50	14.00	441-SL-20	TX046207
25.00	38.00	6.50	14.00	441-SL-21	TX046215
23.00	39.00	8.00	20.00	441-SL-22	TX046223
24.00	40.00	8.00	20.00	441-SL-23	TX046231
25.00	41.00	8.00	20.00	441-SL-24	TX04624X
26.00	42.00	8.00	20.00	441-SL-25	TX046258
27.00	43.00	8.00	20.00	441-SL-26	TX046266
28.00	44.00	8.00	20.00	441-SL-27	TX046274
29.00	45.00	8.00	20.00	441-SL-28	TX046282
30.00	46.00	8.00	20.00	441-SL-29	TX046290
31.00	47.00	8.00	20.00	441-SL-30	TX046304
32.00	48.00	8.00	20.00	441-SL-31	TX046312
33.00	49.00	8.00	20.00	441-SL-32	TX046320
34.00	50.00	8.00	20.00	441-SL-33	TX046339
35.00	51.00	8.00	20.00	441-SL-34	TX046347
36.00	52.00	8.00	20.00	441-SL-35	TX046355
37.00	53.00	8.00	20.00	441-SL-36	TX046363
38.00	54.00	8.00	20.00	441-SL-37	TX046371
39.00	55.00	8.00	20.00	441-SL-38	TX04638X
40.00	56.00	8.00	20.00	441-SL-39	TX046398

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
41.00	57.00	8.00	20.00	441-SL-40	TX046401
42.00	58.00	8.00	20.00	441-SL-41	TX04641X
43.00	59.00	8.00	20.00	441-SL-42	TX046428
44.00	60.00	8.00	20.00	441-SL-43	TX046436
45.00	61.00	8.00	20.00	441-SL-44	TX046444
46.00	62.00	8.00	20.00	441-SL-45	TX046452
47.00	63.00	8.00	20.00	441-SL-46	TX046460
48.00	64.00	8.00	20.00	441-SL-47	TX046479
49.00	65.00	8.00	20.00	441-SL-48	TX046487
50.00	66.00	8.00	20.00	441-SL-49	TX046495
50.00	70.00	10.00	24.00	441-SL-50	TX046509
52.00	72.00	10.00	24.00	441-SL-51	TX046517
55.00	75.00	10.00	24.00	441-SL-52	TX046525
56.00	76.00	10.00	24.00	441-SL-52A	TX046533
57.00	77.00	10.00	24.00	441-SL-53	TX046541
60.00	80.00	10.00	24.00	441-SL-54	TX04655X
62.00	82.00	10.00	24.00	441-SL-55	TX046568
63.00	83.00	10.00	24.00	441-SL-55A	TX046576
65.00	85.00	10.00	24.00	441-SL-56	TX046584
67.00	87.00	10.00	24.00	441-SL-57	TX046592
70.00	90.00	10.00	24.00	441-SL-58	TX046606
72.00	92.00	10.00	24.00	441-SL-59	TX046614
75.00	95.00	10.00	24.00	441-SL-60	TX046622
77.00	97.00	10.00	24.00	441-SL-61	TX046630
80.00	100.00	10.00	24.00	441-SL-62	TX046649
82.00	102.00	10.00	24.00	441-SL-63	TX046657
85.00	105.00	10.00	24.00	441-SL-64	TX046665
87.00	107.00	10.00	24.00	441-SL-65	TX046673
90.00	110.00	10.00	24.00	441-SL-66	TX046681
90.00	115.00	12.50	32.00	441-SL-67	TX04669X
95.00	120.00	12.50	32.00	441-SL-68	TX046703
100.00	125.00	12.50	32.00	441-SL-69	TX046711
105.00	130.00	12.50	32.00	441-SL-70	TX04672X
110.00	135.00	12.50	32.00	441-SL-71	TX046738
115.00	140.00	12.50	32.00	441-SL-72	TX046746
120.00	145.00	12.50	32.00	441-SL-73	TX046754
125.00	150.00	12.50	32.00	441-SL-74	TX046762
130.00	155.00	12.50	32.00	441-SL-75	TX046770
135.00	160.00	12.50	32.00	441-SL-76	TX046789
140.00	165.00	12.50	32.00	441-SL-77	TX046797
145.00	170.00	12.50	32.00	441-SL-78	TX046800
150.00	175.00	12.50	32.00	441-SL-79	TX046819

Continued...

## Twinset — rod/gland &amp; piston seals

## Twinset — JW Chart 441 SL continued

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
150.00	180.00	15.00	38.00	441-SL-80	TX046827
155.00	185.00	15.00	38.00	441-SL-81	TX046835
160.00	190.00	15.00	38.00	441-SL-82	TX046843
165.00	195.00	15.00	38.00	441-SL-83	TX046851
170.00	200.00	15.00	38.00	441-SL-84	TX04686X
175.00	205.00	15.00	38.00	441-SL-85	TX046878
180.00	210.00	15.00	38.00	441-SL-86	TX046886
185.00	215.00	15.00	38.00	441-SL-87	TX046894
190.00	220.00	15.00	38.00	441-SL-88	TX046908
195.00	225.00	15.00	38.00	441-SL-89	TX046916
200.00	230.00	15.00	38.00	441-SL-90	TX046924
205.00	235.00	15.00	38.00	441-SL-91	TX046932
210.00	240.00	15.00	38.00	441-SL-92	TX046940
215.00	245.00	15.00	38.00	441-SL-93	TX046959
220.00	250.00	15.00	38.00	441-SL-94	TX046967
225.00	255.00	15.00	38.00	441-SL-95	TX046975
230.00	260.00	15.00	38.00	441-SL-96	TX046983
235.00	265.00	15.00	38.00	441-SL-97	TX046991
240.00	270.00	15.00	38.00	441-SL-98	TX047009
245.00	275.00	15.00	38.00	441-SL-99	TX047017
250.00	280.00	15.00	38.00	441-SL-100	TX047025
255.00	285.00	15.00	38.00	441-SL-101	TX047033
260.00	290.00	15.00	38.00	441-SL-102	TX047041
265.00	295.00	15.00	38.00	441-SL-103	TX04705X
270.00	300.00	15.00	38.00	441-SL-104	TX047068
280.00	310.00	15.00	38.00	441-SL-105	TX047076
290.00	320.00	15.00	38.00	441-SL-106	TX047084
300.00	330.00	15.00	38.00	441-SL-107	TX047092
310.00	340.00	15.00	38.00	441-SL-108	TX047106
320.00	350.00	15.00	38.00	441-SL-109	TX047114
330.00	360.00	15.00	38.00	441-SL-110	TX047122
340.00	370.00	15.00	38.00	441-SL-111	TX047130
350.00	380.00	15.00	38.00	441-SL-112	TX047149
360.00	390.00	15.00	38.00	441-SL-113	TX047157
370.00	400.00	15.00	38.00	441-SL-114	TX047165
380.00	410.00	15.00	38.00	441-SL-115	TX047173
390.00	420.00	15.00	38.00	441-SL-116	TX047181
400.00	430.00	15.00	38.00	441-SL-117	TX04719X
400.00	440.00	20.00	47.00	441-SL-118	TX047203
410.00	450.00	20.00	47.00	441-SL-119	TX047211
420.00	460.00	20.00	47.00	441-SL-120	TX04722X

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
430.00	470.00	20.00	47.00	441-SL-121	TX047238
440.00	480.00	20.00	47.00	441-SL-122	TX047246
450.00	490.00	20.00	47.00	441-SL-123	TX047254
460.00	500.00	20.00	47.00	441-SL-124	TX047262
470.00	510.00	20.00	47.00	441-SL-125	TX047270
480.00	520.00	20.00	47.00	441-SL-126	TX047289
490.00	530.00	20.00	47.00	441-SL-127	TX047297
500.00	540.00	20.00	47.00	441-SL-128	TX047300

# Solosele® G — rod/gland & piston seals

## Solosele® G — JW Chart 301

Rod/gland & piston/cylinder sealing applications

JW established metric (mm) size range

**Metric (mm) sizes with direct equivalent inch (fraction) sizes**

# 1; Housing dimensions conform to BS ISO 5597 Tables 2, 3 & 7.  
L1 (short) axial length housings for piston seals.

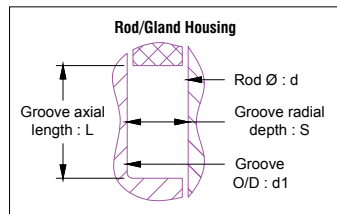
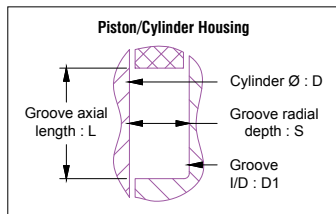
# 2; Housing dimensions conform to BS ISO 5597 Tables 2, 3 & 7.  
L2 (medium) axial length housings for piston seals.

# 3; Housing dimensions conform to BS ISO 5597 Tables 2, 4 & 7.  
Axial length housings for piston seals for Cylinders to ISO 6020-2.

# 4; Housing dimensions conform to BS ISO 5597 Tables 2, 5 & 7  
L1 (short) axial length housings for rod seals.

# 5; Housing dimensions conform to BS ISO 5597 Tables 2, 5 & 7  
L2 (medium) axial length housings for rod seals.

# 6; Housing dimensions conform to BS ISO 5597 Tables 2, 6 & 7.  
Axial length housings for rod seals for Cylinders to ISO 6020-2.



Nominal housing dimensions				JW Part Number	JW Order Number (Endless)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
8.00 #4	16.00 #1	4.00	5.00	301-008016050	SL000083
8.00 #5	16.00 #2	4.00	6.30	301-008016063	SL078007
9.53	19.05	4.76	7.14	301-07500188I	SL001047
3/8	3/4	3/16	9/32		
12.70	22.23	4.76	7.14	301-08750188I	SL001063
1/2	7/8	3/16	9/32		
15.88	25.40	4.76	7.14	301-10000188I	SL001071
5/8	1	3/16	9/32		
15.88	28.58	6.35	7.14	301-11250250I	SL00108X
5/8	1 1/8	1/4	9/32		
16.00 #4	24.00	4.00	5.00	301-016024050	SL000164
16.00 #5	24.00	4.00	6.30	301-016024063	SL050005
16.00 #5	26.00	5.00	8.00	301-016026080	SL050056
17.00	25.00	4.00	5.00	301-017025050	SL000172
17.00	25.00	4.00	6.30	301-017025063	SL078015
18.00 #6	25.00 #3	3.50	5.60	301-018025056	SL078023
19.05	31.8	6.35	9.53	301-12500250I	SL001098
3/4	1 1/4	1/4	3/8		
20.00	28.00	4.00	5.00	301-020028050	SL000202
20.00 #4	28.00	4.00	6.30	301-020028063	SL078031
20.00 #5	30.00	5.00	8.00	301-020030080	SL07804X
22.00	32.00 #1	5.00	6.30	301-022032063	SL078058
22.00	32.00	5.00	7.50	301-022032075	SL000059

Nominal housing dimensions				JW Part Number	JW Order Number (Endless)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
22.00 #5	32.00 #2	5.00	8.00	301-022032080	SL078066
22.23	34.93	6.35	9.53	301-13750250I	SL001012
7/8	1 3/8	1/4	3/8		
24.00	32.00 #1	4.00	5.00	301-024032050	SL000245
24.00	32.00 #2	4.00	6.30	301-024032063	SL078074
25.00 #5	35.00	5.00	8.00	301-025035080	SL078082
25.40	31.80	3.20	4.75	301-12500125I	SL001020
1	1 1/4	1/8	3/16		
25.40	34.93	4.75	6.35	301-13750188I	SL001039
1	1 3/8	3/16	1/4		
25.40	38.01	6.35	6.35	301-15000250I	SL00111X
1	1 1/2	1/4	1/4		
25.40	41.28	7.94	11.10	301-16250313I	SL001128
1	1 5/8	5/16	7/16		
28.00 #6	36.00	4.00	6.30	301-028036063	SL078090
28.00	36.00	4.00	6.40	301-028036064	SL000008
28.00 #4	38.00	5.00	6.30	301-028038063	SL000288
28.00 #5	38.00	5.00	8.00	301-028038080	SL000075
28.58	41.28	6.35	9.53	301-16250250I	SL001136
1 1/8	1 5/8	1/4	3/8		
28.58	44.45	7.94	11.10	301-17500313I	SL001144
1 1/8	1 3/4	5/16	7/16		
30.00	38.00	4.00	6.00	301-030038060	SL000091
30.00	38.00	4.00	6.40	301-030038064	SL000016
30.00	40.00 #1	5.00	6.30	301-030040063	SL078104
30.00	40.00 #2	5.00	8.00	301-030040080	SL078112
30.00	45.00	7.50	7.50	301-035045075	SL000695
31.75	41.28	4.76	7.14	301-16250188I	SL001152
1 1/4	1 5/8	3/16	9/32		
31.75	44.45	6.35	9.53	301-17500250I	SL001160
1 1/4	1 3/4	1/4	3/8		
31.75	47.63	7.94	11.10	301-18750313I	SL001179
1 1/4	1 7/8	5/16	7/16		
32.00	40.00 #1	4.00	5.00	301-032040050	SL000318
32.00	40.00 #1, #3	4.00	6.30	301-032040063	SL000571
32.00	40.00	4.00	6.00	301-032040060	SL00058X
34.93	44.45	4.76	7.14	301-17500188I	SL001187
1 3/8	1 3/4	3/16	9/32		
34.93	50.80	7.94	11.10	301-20000313I	SL001195
1 3/8	2	5/16	7/16		
35.00	43.00	4.00	6.00	301-035043060	SL000598
35.00	43.00	4.00	6.40	301-035043064	SL000512

Continued...

# Solosele® G — rod/gland seals

## Solosele® G — JW Chart 301 *continued*

Nominal housing dimensions				JW Part Number	JW Order Number (Endless)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
35.00	45.00	5.00	9.00	301-030045090	SL000547
35.00	50.00 #1	7.50	9.50	301-035050095	SL078120
35.00	50.00 #2	7.50	12.50	301-035050125	SL078139
36.00	44.00	4.00	6.00	301-036044060	SL003007
36.00	44.00	4.00	6.40	301-036044064	SL003104
36.00 #4	46.00	5.00	6.30	301-036046063	SL000369
36.00 #5	46.00	5.00	8.00	301-036046080	SL003309
36.00	51.00	7.50	11.00	301-036051110	SL000431
38.10	50.80	6.35	9.53	301-20000250I	SL001209
1 1/2	2	1/4	3/8		
38.10	53.98	7.94	11.10	301-21250313I	SL001306
1 1/2	2 1/8	5/16	7/16		
40.00	48.00	4.00	6.40	301-040048064	SL004003
40.00	48.00	4.00	6.00	301-040048060	SL078147
40.00	50.00	5.00	10.50	301-040050105	SL000423
40.00	50.00	5.00	7.50	301-040050075	SL004100
40.00	55.00	7.50	11.00	301-040055110	SL078155
40.00 #5	55.00	7.50	12.50	301-040055125	SL078163
40.00	60.00	10.00	14.00	301-040060140	SL00044X
41.28	57.15	7.94	11.10	301-22500313I	SL001500
1 5/8	2 1/4	5/16	7/16		
42.00	50.00 #3	4.00	6.30	301-042050063	SL078171
44.45	53.98	4.76	4.37	301-21250188I	SL000199
1 3/4	2 1/8	3/16	11/64		
44.45	57.15	6.35	9.53	301-22500250I	SL000024
1 3/4	2 1/4	1/4	3/8		
44.45	60.33	7.94	11.10	301-23750313I	SL000032
1 3/4	2 3/8	5/16	7/16		
45.00 #6	53.00	4.00	6.30	301-045053063	SL07818X
45.00 #4	55.00	5.00	6.30	301-045055063	SL000458
45.00	55.00	5.00	7.50	301-045055075	SL000040
45.00 #5	55.00	5.00	8.00	301-045055080	SL000415
45.00	65.00	10.00	14.00	301-045065140	SL078198
47.63	63.50	7.94	9.53	301-25000313I	SL002108
1 7/8	2 1/2	5/16	3/8		
48.00	63.00 #1	7.50	9.50	301-048063095	SL078201
48.00	63.00 #2	7.50	12.50	301-048063125	SL07821X
50.00 #4	60.00	5.00	6.30	301-050060063	SL000504
50.00	60.00	5.00	7.50	301-050060075	SL000474
50.00 #5	60.00	5.00	8.00	301-050060080	SL00075X
50.00	62.00	6.00	9.50	301-050062095	SL006006

Nominal housing dimensions				JW Part Number	JW Order Number (Endless)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
50.80	63.50	6.35	9.53	301-25000250I	SL005107
2	2 1/2	1/4	3/8		
50.80	66.68	7.94	11.10	301-26250313I	SL005204
2	2 5/8	5/16	7/16		
50.80	69.85	9.53	14.28	301-27500375I	SL005301
2	2 3/4	3/8	9/16		
55.00	65.00	5.00	8.00	301-055065080	SL006103
56.00	66.00	5.00	8.00	301-056066080	SL003503
57.15	69.85	6.35	9.53	301-27500250I	SL005409
2 1/4	2 3/4	1/4	3/8		
57.15	76.20	9.53	9.53	301-30000375I	SL005506
2 1/4	3	3/8	3/8		
60.00	70.00	5.00	8.00	301-060070080	SL007002
60.00	72.00	6.00	9.50	301-060072095	SL00061X
60.00	80.00 #1	10.00	12.50	301-060080125	SL078228
60.00	80.00	10.00	14.00	301-060080140	SL078236
60.00	80.00	10.00	16.00	301-060080160	SL078244
63.50	76.20	6.35	7.93	301-30000250I	SL005603
2 1/2	3	1/4	5/16		
63.50	79.38	7.94	9.53	301-31250313I	SL005700
2 1/2	3 1/8	5/16	3/8		
63.50	82.55	9.53	14.28	301-32500375I	SL005808
2 1/2	3 1/4	3/8	9/16		
63.50	88.90	12.70	19.05	301-35000500I	SL005905
2 1/2	3 1/2	1/2	3/4		
65.00	80.00 #1	7.50	9.50	301-065080095	SL000652
65.00	80.00	7.50	11.00	301-065080110	SL078252
65.00	80.00 #2	7.50	12.50	301-065080125	SL078260
65.00	85.00	10.00	14.00	301-065085140	SL000644
66.68	85.75	9.53	14.28	301-33750375I	SL005913
2 5/8	3 3/8	3/8	9/16		
69.85	82.55	6.35	9.53	301-32500250I	SL005921
2 3/4	3 1/4	1/4	3/8		
69.85	88.90	9.53	14.28	301-35000375I	SL00593X
2 3/4	3 1/2	3/8	9/16		
70.00 #6	80.00 #3	5.00	7.50	301-070080075	SL000660
70.00	82.00	6.00	9.00	301-070082090	SL078279
70.00	84.00	7.00	12.00	301-070084120	SL078287
70.00 #4	85.00	7.50	9.50	301-070085095	SL000709
70.00 #5	85.00	7.50	12.50	301-070085125	SL078295
70.00	90.00	10.00	14.00	301-070090140	SL078309
70.00 #5	90.00 #2	10.00	16.00	301-070090160	SL078317

Continued...

# Solosele® G — rod/gland & piston seals

## Solosele® G — JW Chart 301 *continued*

Nominal housing dimensions				JW Part Number	JW Order Number (Endless)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
76.20 3	92.08 3 3/8	4.76 3/16	9.53 3/8	301-36250313I	SL005948
76.20 3	95.25 3 3/4	9.53 3/8	12.70 1/2	301-37500375I	SL005956
76.20 3	101.60 4	12.70 1/2	15.88 5/8	301-40000500I	SL005964
80.00 #4	95.00	7.50	9.50	301-080095095	SL000806
80.00	95.00	7.50	12.00	301-080095120	SL078325
80.00 #5	95.00	7.50	12.50	301-080095125	SL078333
80.00	100.00	10.00	14.00	301-080100140	SL000679
80.00	100.00 #1	10.00	12.50	301-080100125	SL078341
80.00 #5	100.00 #2	10.00	16.00	301-080100160	SL07835X
82.55 3 1/4	101.60 4	9.53 3/8	14.28 9/16	301-40000375I	SL005972
85.00	100.00 #1	7.50	9.50	301-085100095	SL000857
85.00	100.00 #2	7.50	12.50	301-085100125	SL078368
89.90 3 1/2	101.60 4	6.35 1/4	9.53 3/8	301-40000250I	SL005980
88.90 3 1/2	109.00 4 1/4	9.53 3/8	14.28 9/16	301-42500375I	SL005999
88.90 3 1/2	114.30 4 1/2	12.70 1/2	19.05 3/4	301-45000500I	SL006014
90.00 #5	105.00	7.50	12.50	301-090105125	SL000687
90.00	105.00	7.50	9.50	301-090105095	SL000903
90.00 #5	110.00	10.00	16.00	301-090110160	SL078376
100.00	115.00	7.50	12.00	301-100115120	SL078384
100.00	120.00	10.00	12.50	301-100120125	SL001004
100.00	120.00	10.00	14.00	301-100120140	SL078392
100.00 #5	120.00	10.00	16.00	301-100120160	SL078406
101.60 4	127.00 5	12.70 1/2	19.05 3/4	301-50000500I	SL006022
105.00	125.00 #1	10.00	12.50	301-105125125	SL001055
105.00	125.00 #2	10.00	16.00	301-105125160	SL078414
107.95 4 1/4	133.35 5 1/4	12.70 1/2	19.05 3/4	301-52500500I	SL006030
114.30 4 1/2	139.70 5 1/2	12.70 1/2	19.05 3/4	301-55000500I	SL006049
125.00 #5	150.00	12.50	20.00	301-125150200	SL078422
127.00 5	152.40 6	12.70 1/2	19.05 3/4	301-60000500I	SL006057
135.00	160.00 #1	12.50	16.00	301-135160160	SL078430

Nominal housing dimensions				JW Part Number	JW Order Number (Endless)
Rod Ø (d) Piston groove I/D (D1)	Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
135.00 139.70 5 1/2	160.00 #2 165.10 6 1/2	12.50 12.70 1/2	20.00 19.05 3/4	301-135160200 301-65000500I	SL078449 SL006065
140.00 #4	160.00 #1	10.00	12.50	301-140160125	SL001403
140.00 #5	160.00 #2	10.00	16.00	301-140160160	SL078457
140.00 #5	165.00	12.50	20.00	301-140165200	SL078465
150.00	170.00	10.00	14.00	301-150170140	SL000717
152.40 6	177.80 7	12.70 1/2	19.05 3/4	301-70000500I	SL006073
175.00	200.00 #1	12.50	16.00	301-175200160	SL001756
175.00	200.00 #2	12.50	20.00	301-175200200	SL078473
180.00	210.00	15.00	25.00	301-180210250	SL078481
200.00 #4	225.00	12.50	16.00	301-200225160	SL002000
200.00 #5	225.00	12.50	20.00	301-200225200	SL07849X
200.00 #5	230.00	15.00	25.00	301-200230250	SL078503
220.00 #4	250.00 #1	15.00	20.00	301-220250200	SL002205
220.00 #5	250.00 #2	15.00	25.00	301-220250250	SL078511
225.00	250.00 #1	12.50	16.00	301-225250160	SL002256
225.00	250.00 #2	12.50	20.00	301-225250200	SL07852X
250.00 #4	280.00 #1	15.00	20.00	301-250280200	SL002507
250.00 #5	280.00 #2	15.00	25.00	301-250280250	SL078538
280.00 #4	310.00	15.00	20.00	301-280310200	SL002809
280.00 #5	310.00	15.00	25.00	301-280310250	SL078546
360.00 #4	400.00 #1	20.00	25.00	301-360400250	SL003600
360.00 #5	400.00 #2	20.00	32.00	301-360400320	SL078554
460.00	500.00 #1	20.00	25.00	301-460500250	SL004607
460.00	500.00 #2	20.00	32.00	301-460500320	SL078562



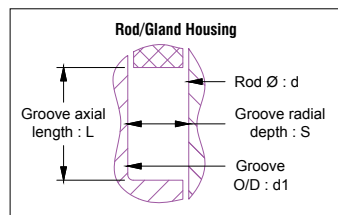
# Lionsele® G — rod/gland seals

## Lionsele® G — JW Chart 302

### Rod/gland sealing applications

JW established range of metric (mm) housing sizes.

Housing dimensions conform to the requirements of BS ISO 7425-2



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
6.00	10.90	2.45	2.20	302-00600245	L0000006
6.00	11.00	2.50	2.20	302-00600250	L0002408
8.00	12.90	2.45	2.20	302-00800245	L0000057
8.00	13.00	2.50	2.20	302-00800250	L0002459
10.00	14.90	2.45	2.20	302-01000245	L0000103
10.00	15.00	2.50	2.20	302-01000250	L0002505
10.00	17.30	3.65	3.20	302-01000365	L0000154
10.00	17.50	3.75	3.20	302-01000375	L0000200
12.00	16.90	2.45	2.20	302-01200245	L0000251
12.00	17.00	2.50	2.20	302-01200250	L0000308
12.00	19.30	3.65	3.20	302-01200365	L0000359
12.00	19.50	3.75	3.20	302-01200375	L0002256
14.00	18.90	2.45	2.20	302-01400245	L0000405
14.00	19.00	2.50	2.20	302-01400250	L0002602
14.00	21.30	3.65	3.20	302-01400365	L0000456
16.00	23.30	3.65	3.20	302-01600365	L0000502
16.00	23.50	3.75	3.20	302-01600375	L000270X
18.00	25.30	3.65	3.20	302-01800365	L0000553
18.00	25.50	3.75	3.20	302-01800375	L0002750
20.00	27.30	3.65	3.20	302-02000365	L000060X
20.00	27.50	3.75	3.20	302-02000375	L0002807
20.00	30.70	5.35	4.20	302-02000535	L0000650
20.00	31.00	5.50	4.20	302-02000550	L0002858
22.00	29.30	3.65	3.20	302-02200365	L0000707
22.00	29.50	3.75	3.20	302-02200375	L0002904
22.00	32.70	5.35	4.20	302-02200535	L0000758
22.00	33.00	5.50	4.20	302-02200550	L0002955
25.00	32.30	3.65	3.20	302-02500365	L0000804
25.00	32.50	3.75	3.20	302-02500375	L0003005
25.00	35.70	5.35	4.20	302-02500535	L0000855
25.00	36.00	5.50	4.20	302-02500550	L0003056
28.00	38.70	5.35	4.20	302-02800535	L0000901
28.00	39.00	5.50	4.20	302-02800550	L0003102
32.00	42.70	5.35	4.20	302-03200535	L0000952
32.00	43.00	5.50	4.20	302-03200550	L0003153
36.00	46.70	5.35	4.20	302-03600535	L0001002

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
36.00	47.00	5.50	4.20	302-03600550	L000320X
40.00	51.00	5.50	4.20	302-04000550	L0003250
40.00	55.10	7.55	6.30	302-04000755	L0001053
40.00	55.50	7.75	6.30	302-04000775	L000110X
45.00	55.70	5.35	4.20	302-04500535	L0001150
45.00	56.00	5.50	4.20	302-04500550	L0003307
45.00	60.10	7.55	6.30	302-04500755	L0001207
45.00	60.50	7.75	6.30	302-04500775	L0001258
50.00	60.70	5.35	4.20	302-05000535	L0001304
50.00	61.00	5.50	4.20	302-05000550	L0003358
50.00	65.10	7.55	6.30	302-05000755	L0001355
50.00	65.50	7.75	6.30	302-05000775	L0001401
56.00	66.70	5.35	4.20	302-05600535	L0001452
56.00	67.00	5.50	4.20	302-05600550	L0003404
56.00	71.10	7.55	6.30	302-05600755	L0001509
56.00	71.50	7.75	6.30	302-05600775	L000155X
63.00	78.10	7.55	6.30	302-06300755	L0001606
63.00	78.50	7.75	6.30	302-06300775	L0003455
70.00	85.10	7.55	6.30	302-07000755	L0001657
70.00	85.50	7.75	6.30	302-07000775	L0003501
80.00	95.10	7.55	6.30	302-08000755	L0001703
80.00	95.50	7.75	6.30	302-08000775	L0003552
90.00	105.10	7.55	6.30	302-09000755	L0001754
90.00	105.50	7.75	6.30	302-09000775	L0003609
100.00	115.10	7.55	6.30	302-10000755	L0001800
100.00	115.50	7.75	6.30	302-10000775	L000365X
110.00	125.10	7.55	6.30	302-11000755	L0001851
110.00	125.50	7.75	6.30	302-11000775	L0003706
125.00	140.10	7.55	6.30	302-12500755	L0001908
125.00	140.50	7.75	6.30	302-12500775	L0003757
140.00	155.10	7.55	6.30	302-14000755	L0001959
140.00	155.50	7.75	6.30	302-14000775	L0003803
160.00	175.10	7.55	6.30	302-16000755	L0002009
160.00	175.50	7.75	6.30	302-16000775	L0003854
180.00	195.10	7.55	6.30	302-18000755	L000205X
180.00	195.50	7.75	6.30	302-18000775	L0003900
200.00	220.50	10.25	8.10	302-20001025	L0002106
200.00	221.00	10.50	8.10	302-20001050	L0003951
220.00	240.50	10.25	8.10	302-22001025	L0002157
220.00	241.00	10.50	8.10	302-22001050	L0004001
250.00	270.50	10.25	8.10	302-25001025	L0002203
250.00	271.00	10.50	8.10	302-25001050	L0004052
280.00	304.00	12.00	8.10	302-28001200	L0002254
320.00	344.00	12.00	8.10	302-32001200	L0002300
320.00	344.50	12.25	8.10	302-32001225	L0004109
360.00	384.00	12.00	8.10	302-36001200	L0002351
360.00	384.50	12.25	8.10	302-36001225	L000415X

# Lionsele® U2 — rod/gland seals

## Lionsele® U2 — JW Chart 305

### Rod/gland sealing applications

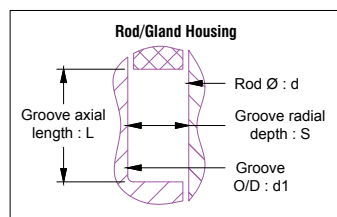
# 1; JW established range of metric (mm) housing size range.

# 2; Dimensions conform to BS ISO 5597 Tables 2, 3 & 7.

L2 (medium) axial length housings for rod seals.

# 3; Dimensions conform to BS ISO 5597 Tables 2, 4 & 7.

Axial length housings for rod seals for cylinders to ISO 6020-2.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
10.00 #2	18.00	4.00	6.30	305-010018063	UC000803
12.00 #3	19.00	3.50	5.60	305-012019056	UC000811
12.00 #2	20.00	4.00	6.30	305-012020063	UC00082X
14.00 #3	21.00	3.50	5.60	305-014021056	UC000838
14.00 #2	22.00	4.00	6.30	305-014022063	UC000846
16.00 #2	24.00	4.00	6.30	305-016024063	UC000854
16.00 #1	24.00	4.00	6.50	305-016024065	UC000862
18.00 #3	25.00	3.50	5.60	305-018025056	UC000870
18.00 #2	26.00	4.00	6.30	305-018026063	UC000889
20.00 #2	28.00	4.00	6.30	305-020028063	UC000897
20.00 #1	28.00	4.00	6.50	305-020028065	UC000900
22.00 #3	29.00	3.50	5.60	305-022029056	UC000919
22.00 #2	30.00	4.00	6.30	305-022030063	UC000927
25.00 #1	33.00	4.00	6.20	305-025033062	UC000935
25.00 #2	33.00	4.00	6.30	305-025033063	UC000943
28.00 #3	36.00	4.00	6.30	305-028036063	UC000951
28.00 #2	38.00	5.00	8.00	305-028038080	UC00096X
30.00 #1	40.00	5.00	11.00	305-030040110	UC000978
32.00 #2	42.00	5.00	8.00	305-032042080	UC000986
32.00 #1	42.00	5.00	11.00	305-032042110	UC001001
35.00 #1	45.00	5.00	11.00	305-035045110	UC00101X
36.00 #3	44.00	4.00	6.30	305-036044063	UC001028
36.00 #2	46.00	5.00	8.00	305-036046080	UC001036
40.00 #2	50.00	5.00	8.00	305-040050080	UC001044
40.00 #1	50.00	5.00	11.00	305-040050110	UC001052
45.00 #3	53.00	4.00	6.30	305-045053063	UC001060
45.00 #2	55.00	5.00	8.00	305-045055080	UC001079
45.00 #1	55.00	5.00	11.00	305-045055110	UC001087
50.00 #2	60.00	5.00	8.00	305-050060080	UC001095
50.00 #1	60.00	5.00	11.00	305-050060110	UC001109
56.00 #3	66.00	5.00	7.50	305-056066075	UC001117
56.00 #2	71.00	7.50	12.50	305-056071125	UC001125

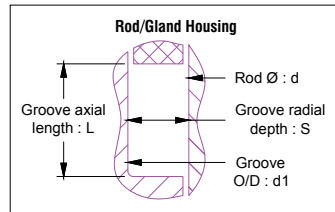
Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
60.00 #1	70.00	5.00	12.50	305-060070125	UC001133
60.00 #1	75.00	7.50	11.00	305-060075110	UC001141
63.00 #2	78.00	7.50	12.50	305-063078125	UC00115X
70.00 #3	80.00	5.00	7.50	305-070080075	UC001168
70.00 #1	80.00	5.00	12.50	305-070080125	UC001176
70.00 #2	85.00	7.50	12.50	305-070085125	UC001184
75.00 #1	85.00	5.00	13.00	305-075085130	UC001192
80.00 #1	90.00	5.00	12.50	305-080060125	UC001206
80.00 #2	95.00	7.50	12.50	305-080095125	UC001214
85.00 #1	100.00	7.50	13.00	305-085100130	UC001222
90.00 #3	100.00	5.00	7.50	305-090100075	UC001230
90.00 #2	105.00	7.50	12.50	305-090105125	UC001249
100.00 #2	120.00	10.00	16.00	305-100120160	UC001257
110.00 #3	125.00	7.50	10.60	305-110125106	UC001265
110.00 #2	130.00	10.00	16.00	305-110130160	UC001273
125.00 #2	145.00	10.00	16.00	305-125145160	UC001281
140.00 #3	155.00	7.50	10.60	305-140155106	UC00129X
140.00 #2	160.00	10.00	16.00	305-140160160	UC001303
160.00 #2	185.00	12.50	20.00	305-160185200	UC001311
180.00 #2	205.00	12.50	20.00	305-180205200	UC00132X
200.00 #2	225.00	12.50	20.00	305-200225200	UC001338

# Lofilm® — rod/gland seals

## Lofilm® — JW Chart 75

### Rod/gland sealing applications

Seal sets for non-adjustable housings.  
JW established metric (mm) size range.

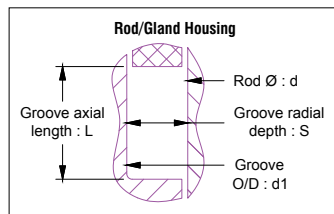


Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
20.00	30.00	5.00	16.00	75-020030	LU050206
45.00	60.00	7.50	25.00	75-045060	LU050451

## Lofilm® — JW Chart 300

### Rod/gland sealing applications

JW established metric (mm) size range for non-adjustable Rod Seal Housings.  
Based on the requirements of BS ISO 5597 - Long (L3) axial length series housings.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
6.00	14.00	4.00	14.50	300-006014145	LU070002
8.00	16.00	4.00	14.50	300-008016145	LU07010X
10.00	20.00	5.00	16.00	300-010020160	LU070118
12.00	22.00	5.00	16.00	300-012022160	LU070169
14.00	24.00	5.00	16.00	300-014024160	LU070126
16.00	26.00	5.00	16.00	300-016026160	LU070134
18.00	28.00	5.00	16.00	300-018028160	LU070142
20.00	30.00	5.00	14.50	300-020030145	LU070150
22.00	32.00	5.00	16.00	300-022032160	LU070177
25.00	35.00	5.00	16.00	300-025035160	LU070185
28.00	43.00	7.50	25.00	300-028043250	LU070193
32.00	47.00	7.50	25.00	300-032047250	LU070215
36.00	51.00	7.50	25.00	300-036051250	LU070223
40.00	50.00	5.00	16.00	300-040050160	LU070231
40.00	55.00	7.50	25.00	300-040055250	LU07024X
45.00	55.00	5.00	16.00	300-045055160	LU070258
50.00	65.00	7.50	25.00	300-050065250	LU070266
56.00	71.00	7.50	25.00	300-056071250	LU070274

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Rod groove O/D (d1)	Radial depth (S)	Axial length (L)		
56.00	76.00	10.00	32.00	300-056076320	LU070282
63.00	78.00	7.50	25.00	300-063078250	LU070290
63.00	83.00	10.00	32.00	300-063083320	LU070304
70.00	85.00	7.50	25.00	300-070085250	LU070312
70.00	90.00	10.00	32.00	300-070090320	LU070320
80.00	100.00	10.00	32.00	300-080100320	LU070339
80.00	95.00	7.50	25.00	300-080095250	LU070347
90.00	105.00	7.50	25.00	300-090105250	LU070355
90.00	110.00	10.00	32.00	300-090110320	LU070363
100.00	120.00	10.00	32.00	300-100120320	LU070371
100.00	125.00	12.50	40.00	300-100125400	LU07038X
110.00	130.00	10.00	32.00	300-110130320	LU070398
110.00	135.00	12.50	40.00	300-110135400	LU070401
125.00	145.00	10.00	32.00	300-125145320	LU07041X
125.00	150.00	12.50	40.00	300-125150400	LU070428
140.00	160.00	10.00	32.00	300-140160320	LU070436
140.00	165.00	12.50	40.00	300-140165400	LU070444
160.00	185.00	12.50	40.00	300-160185400	LU070452
160.00	190.00	15.00	50.00	300-160190500	LU070460
180.00	205.00	12.50	40.00	300-180205400	LU070479
180.00	210.00	15.00	50.00	300-180210500	LU070487
200.00	230.00	15.00	50.00	300-200230500	LU070495
220.00	250.00	15.00	50.00	300-220250500	LU070509
220.00	250.00	15.00	50.00	300-220250500	LU108395
250.00	280.00	15.00	50.00	300-250280500	LU070517
280.00	310.00	15.00	50.00	300-280310500	LU070525
320.00	360.00	20.00	63.00	300-320360630	LU070533
360.00	400.00	20.00	63.00	300-360400630	LU070541

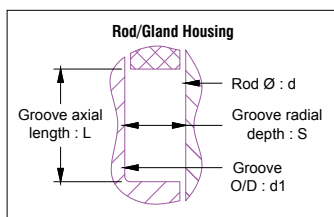
# Lofilm® — rod/gland seals

## Lofilm® — JW Chart 830 (inch sizes)

### Rod/gland sealing applications

Original JW established inch (fraction) size range for non-adjustable Rod Seal Housings.

Designed to suit the long axial length series housings of the 1950 edition of BS 1658, which was declared obsolete and replaced by BS5751, which, itself has been superseded by BS ISO 5597.



Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
5/16	11/16	3/16	1/2	830-1	LU001019
3/8	3/4	3/16	1/2	830-2	LU001027
7/16	13/16	3/16	1/2	830-3	LU001035
1/2	7/8	3/16	1/2	830-4	LU001043
9/16	15/16	3/16	1/2	830-5	LU001051
5/8	1	3/16	1/2	830-6	LU00106X
11/16	1 1/16	3/16	1/2	830-7	LU001078
5/8	1 1/8	1/4	3/4	830-8	LU001086
11/16	1 3/16	1/4	3/4	830-9	LU001094
3/4	1 1/4	1/4	3/4	830-10	LU001108
13/16	1 5/16	1/4	3/4	830-11	LU001116
7/8	1 3/8	1/4	3/4	830-12	LU001124
15/16	1 7/16	1/4	3/4	830-13	LU001132
1	1 1/2	1/4	3/4	830-14	LU001140
15/16	1 9/16	5/16	1	830-15	LU001159
1	1 5/8	5/16	1	830-16	LU001167
1 1/16	1 11/16	5/16	1	830-17	LU001175
1 1/8	1 3/4	5/16	1	830-18	LU001183
1 3/16	1 13/16	5/16	1	830-19	LU001191
1 1/4	1 7/8	5/16	1	830-20	LU001205
1 5/16	1 15/16	5/16	1	830-21	LU001213
1 3/8	2	5/16	1	830-22	LU001221
1 7/16	2 1/16	5/16	1	830-23	LU00123X
1 1/2	2 1/8	5/16	1	830-24	LU001248
1 9/16	2 3/16	5/16	1	830-25	LU001256
1 5/8	2 1/4	5/16	1	830-26	LU001264
1 11/16	2 5/16	5/16	1	830-27	LU001272
1 3/4	2 3/8	5/16	1	830-28	LU001280
1 13/16	2 7/16	5/16	1	830-29	LU001299
1 7/8	2 1/2	5/16	1	830-30	LU001302
1 15/16	2 9/16	5/16	1	830-31	LU001310

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
2	2 5/8	5/16	1	830-32	LU001329
2	2 3/4	3/8	1 1/4	830-33	LU001337
2 1/8	2 7/8	3/8	1 1/4	830-34	LU001345
2 1/4	3	3/8	1 1/4	830-35	LU001353
2 3/8	3 1/8	3/8	1 1/4	830-36	LU001361
2 1/2	3 1/4	3/8	1 1/4	830-37	LU00137X
2 5/8	3 3/8	3/8	1 1/4	830-38	LU001388
2 3/4	3 1/2	3/8	1 1/4	830-39	LU001396
2 7/8	3 5/8	3/8	1 1/4	830-40	LU00140X
3	3 3/4	3/8	1 1/4	830-41	LU001418
3 1/8	3 7/8	3/8	1 1/4	830-42	LU001426
3 1/4	4	3/8	1 1/4	830-43	LU001434
3 3/8	4 1/8	3/8	1 1/4	830-44	LU001442
3 1/2	4 1/4	3/8	1 1/4	830-45	LU001450
3 3/8	4 3/8	1/2	1 3/4	830-46	LU001469
3 8/16	4 1/2	1/2	1 3/4	830-47	LU001477
3 5/8	4 5/8	1/2	1 3/4	830-48	LU001485
3 3/4	4 3/4	1/2	1 3/4	830-49	LU001493
3 7/8	4 7/8	1/2	1 3/4	830-50	LU001507
4	5	1/2	1 3/4	830-51	LU001515
4 1/8	5 1/8	1/2	1 3/4	830-52	LU001523
4 1/4	5 1/4	1/2	1 3/4	830-53	LU001531
4 3/8	5 3/8	1/2	1 3/4	830-54	LU00154X
4 1/2	5 1/2	1/2	1 3/4	830-55	LU001558
4 5/8	5 5/8	1/2	1 3/4	830-56	LU001566
4 3/4	5 3/4	1/2	1 3/4	830-57	LU001574
4 7/8	5 7/8	1/2	1 3/4	830-58	LU001582
5	6	1/2	1 3/4	830-59	LU001590
5 1/8	6 1/8	1/2	1 3/4	830-60	LU001604
5 1/4	6 1/4	1/2	1 3/4	830-61	LU001612
5 3/8	6 3/8	1/2	1 3/4	830-62	LU001620
5 1/2	6 1/2	1/2	1 3/4	830-63	LU001639
5 5/8	6 5/8	1/2	1 3/4	830-64	LU001647
5 3/4	6 3/4	1/2	1 3/4	830-65	LU001655
5 7/8	6 7/8	1/2	1 3/4	830-66	LU001663
6	7	1/2	1 3/4	830-67	LU001671
6	7 1/4	5/8	2	830-68	LU00168X
6 1/4	7 1/2	5/8	2	830-69	LU001698
6 1/2	7 3/4	5/8	2	830-70	LU001701
6 3/4	8	5/8	2	830-71	LU00171X
7	8 1/4	5/8	2	830-72	LU001728
7 1/4	8 1/2	5/8	2	830-73	LU001736

Continued...

## Lofilm® — rod/gland seals

## Lofilm® — JW Chart 830 (inch sizes) continued

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
7 1/2	8 3/4	5/8	2	830-74	LU001744
7 3/4	9	5/8	2	830-75	LU001752
8	9 1/4	5/8	2	830-76	LU001760
8 1/4	9 1/2	5/8	2	830-77	LU001779
8 1/2	9 3/4	5/8	2	830-78	LU001787
8 3/4	10	5/8	2	830-79	LU001795
9	10 1/4	5/8	2	830-80	LU001809
9 1/4	10 1/2	5/8	2	830-81	LU001817
9 1/2	10 3/4	5/8	2	830-82	LU001825
9 3/4	11	5/8	2	830-83	LU001833
10	11 1/4	5/8	2	830-84	LU001841
10 1/4	11 1/2	5/8	2	830-85	LU00185X
10 1/2	11 3/4	5/8	2	830-86	LU001868
10 3/4	12	5/8	2	830-87	LU001876
11	12 1/4	5/8	2	830-88	LU001884
11 1/4	12 1/2	5/8	2	830-89	LU001892
11 1/2	12 3/4	5/8	2	830-90	LU001906
11 3/4	13	5/8	2	830-91	LU001914
12	13 1/4	5/8	2	830-92	LU001922
12 1/4	13 1/2	5/8	2	830-93	LU001930
12 1/2	13 3/4	5/8	2	830-94	LU001949
12 3/4	14	5/8	2	830-95	LU001957
13	14 1/4	5/8	2	830-96	LU001965
13 1/4	14 1/2	5/8	2	830-97	LU001973
13 1/2	14 3/4	5/8	2	830-98	LU001981
13 3/4	15	5/8	2	830-99	LU00199X
14	15 1/4	5/8	2	830-100	LU002007
14 1/4	15 1/2	5/8	2	830-101	LU002015
14 1/2	15 3/4	5/8	2	830-102	LU002023
14 3/4	16	5/8	2	830-103	LU002031
15	16 1/4	5/8	2	830-104	LU00204X
15 1/4	16 1/2	5/8	2	830-105	LU002058
15 1/2	16 3/4	5/8	2	830-106	LU002066
15 3/4	17	5/8	2	830-107	LU002074
16	17 1/4	5/8	2	830-108	LU002082
16	17 1/2	3/4	2 7/8	830-109	LU002090
16 1/2	18	3/4	2 7/8	830-110	LU002104
17	18 2/4	3/4	2 7/8	830-111	LU002112
17 2/4	19	3/4	2 7/8	830-112	LU002120
18	19 1/2	3/4	2 7/8	830-113	LU002139
18 1/2	20	3/4	2 7/8	830-114	LU002147

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
19	20 1/2	3/4	2 7/8	830-115	LU002155
19 1/2	21	3/4	2 7/8	830-116	LU002163
20	21 1/2	3/4	2 7/8	830-117	LU002171

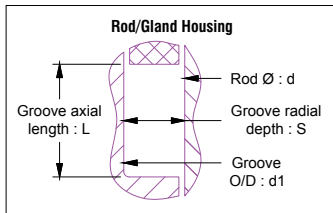
# Lofilm® — rod/gland seals

## Lofilm® — JW Chart 831

### Rod/gland sealing applications

Seal sets for non-adjustable housings.

JW established metric (mm) size range.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
8.00	18.00	5.00	14.50	831-1	LU010018
9.00	19.00	5.00	14.50	831-2	LU010026
10.00	20.00	5.00	14.50	831-3	LU010034
11.00	21.00	5.00	14.50	831-4	LU010042
12.00	22.00	5.00	14.50	831-5	LU010050
13.00	23.00	5.00	14.50	831-6	LU010069
14.00	24.00	5.00	14.50	831-7	LU010077
15.00	25.00	5.00	14.50	831-8	LU010085
13.00	26.00	6.50	18.50	831-9	LU010093
14.00	27.00	6.50	18.50	831-10	LU010107
15.00	28.00	6.50	18.50	831-11	LU010115
16.00	29.00	6.50	18.50	831-12	LU010123
17.00	30.00	6.50	18.50	831-13	LU010131
18.00	31.00	6.50	18.50	831-14	LU01014X
19.00	32.00	6.50	18.50	831-15	LU010158
20.00	33.00	6.50	18.50	831-16	LU010166
21.00	34.00	6.50	18.50	831-17	LU010174
22.00	35.00	6.50	18.50	831-18	LU010182
23.00	36.00	6.50	18.50	831-19	LU010190
24.00	37.00	6.50	18.50	831-20	LU010204
25.00	38.00	6.50	18.50	831-21	LU010212
23.00	39.00	8.00	29.00	831-22	LU010220
24.00	40.00	8.00	29.00	831-23	LU010239
25.00	41.00	8.00	29.00	831-24	LU010247
26.00	42.00	8.00	29.00	831-25	LU010255
27.00	43.00	8.00	29.00	831-26	LU010263
28.00	44.00	8.00	29.00	831-27	LU010271
29.00	45.00	8.00	29.00	831-28	LU01028X
30.00	46.00	8.00	29.00	831-29	LU010298
31.00	47.00	8.00	29.00	831-30	LU010301
32.00	48.00	8.00	29.00	831-31	LU01031X
33.00	49.00	8.00	29.00	831-32	LU010328

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
34.00	50.00	8.00	29.00	831-33	LU010336
35.00	51.00	8.00	29.00	831-34	LU010344
36.00	52.00	8.00	29.00	831-35	LU010352
37.00	53.00	8.00	29.00	831-36	LU010360
38.00	54.00	8.00	29.00	831-37	LU010379
39.00	55.00	8.00	29.00	831-38	LU010387
40.00	56.00	8.00	29.00	831-39	LU010395
41.00	57.00	8.00	29.00	831-40	LU010409
42.00	58.00	8.00	29.00	831-41	LU010417
43.00	59.00	8.00	29.00	831-42	LU010425
44.00	60.00	8.00	29.00	831-43	LU010433
45.00	61.00	8.00	29.00	831-44	LU010441
46.00	62.00	8.00	29.00	831-45	LU01045X
47.00	63.00	8.00	29.00	831-46	LU010468
48.00	64.00	8.00	29.00	831-47	LU010476
49.00	65.00	8.00	29.00	831-48	LU010484
50.00	66.00	8.00	29.00	831-49	LU010492
50.00	70.00	10.00	35.00	831-50	LU010506
52.00	72.00	10.00	35.00	831-51	LU010514
55.00	75.00	10.00	35.00	831-52	LU010522
56.00	76.00	10.00	35.00	831-52A	LU010530
57.00	77.00	10.00	35.00	831-53	LU010549
60.00	80.00	10.00	35.00	831-54	LU010557
62.00	82.00	10.00	35.00	831-55	LU010565
63.00	83.00	10.00	35.00	831-55A	LU010573
65.00	85.00	10.00	35.00	831-56	LU010581
67.00	87.00	10.00	35.00	831-57	LU01059X
70.00	90.00	10.00	35.00	831-58	LU010603
72.00	92.00	10.00	35.00	831-59	LU010611
75.00	95.00	10.00	35.00	831-60	LU01062X
77.00	97.00	10.00	35.00	831-61	LU010638
80.00	100.00	10.00	35.00	831-62	LU010646
82.00	102.00	10.00	35.00	831-63	LU010654
85.00	105.00	10.00	35.00	831-64	LU010662
87.00	107.00	10.00	35.00	831-65	LU010670
90.00	110.00	10.00	35.00	831-66	LU010689
90.00	115.00	12.50	42.50	831-67	LU010697
95.00	120.00	12.50	42.50	831-68	LU010700
100.00	125.00	12.50	42.50	831-69	LU010719
105.00	130.00	12.50	42.50	831-70	LU010727
110.00	135.00	12.50	42.50	831-71	LU010735
115.00	140.00	12.50	42.50	831-72	LU010743

Continued...

## Lofilm® — rod/gland seals

## Lofilm® — JW Chart 831 continued

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
120.00	145.00	12.50	42.50	831-73	LU010751
125.00	150.00	12.50	42.50	831-74	LU01076X
130.00	155.00	12.50	42.50	831-75	LU010778
135.00	160.00	12.50	42.50	831-76	LU010786
140.00	165.00	12.50	42.50	831-77	LU010794
145.00	170.00	12.50	42.50	831-78	LU010808
150.00	175.00	12.50	42.50	831-79	LU010816
150.00	180.00	15.00	50.50	831-80	LU010824
155.00	185.00	15.00	50.50	831-81	LU010832
160.00	190.00	15.00	50.50	831-82	LU010840
165.00	195.00	15.00	50.50	831-83	LU010859
170.00	200.00	15.00	50.50	831-84	LU010867
175.00	205.00	15.00	50.50	831-85	LU010875
180.00	210.00	15.00	50.50	831-86	LU010883
185.00	215.00	15.00	50.50	831-87	LU010891
190.00	220.00	15.00	50.50	831-88	LU010905
195.00	225.00	15.00	50.50	831-89	LU010913
200.00	230.00	15.00	50.50	831-90	LU010921
205.00	235.00	15.00	50.50	831-91	LU01093X
210.00	240.00	15.00	50.50	831-92	LU010948
215.00	245.00	15.00	50.50	831-93	LU010956
220.00	250.00	15.00	50.50	831-94	LU010964
225.00	255.00	15.00	50.50	831-95	LU010972
230.00	260.00	15.00	50.50	831-96	LU010980
235.00	265.00	15.00	50.50	831-97	LU010999
240.00	270.00	15.00	50.50	831-98	LU011006
245.00	275.00	15.00	50.50	831-99	LU011014
250.00	280.00	15.00	50.50	831-100	LU011022
255.00	285.00	15.00	50.50	831-101	LU011030
260.00	290.00	15.00	50.50	831-102	LU011049
265.00	295.00	15.00	50.50	831-103	LU011057
270.00	300.00	15.00	50.50	831-104	LU011065
280.00	310.00	15.00	50.50	831-105	LU011073
290.00	320.00	15.00	50.50	831-106	LU011081
300.00	330.00	15.00	50.50	831-107	LU01109X
310.00	340.00	15.00	50.50	831-108	LU011103
320.00	350.00	15.00	50.50	831-109	LU011111
330.00	360.00	15.00	50.50	831-110	LU01112X
340.00	370.00	15.00	50.50	831-111	LU011138
350.00	380.00	15.00	50.50	831-112	LU011146
360.00	390.00	15.00	50.50	831-113	LU011154

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
370.00	400.00	15.00	50.50	831-114	LU011162
380.00	410.00	15.00	50.50	831-115	LU011170
390.00	420.00	15.00	50.50	831-116	LU011189
400.00	430.00	15.00	50.50	831-117	LU011197
400.00	440.00	20.00	79.00	831-118	LU011200
410.00	450.00	20.00	79.00	831-119	LU011219
420.00	460.00	20.00	79.00	831-120	LU011227
430.00	470.00	20.00	79.00	831-121	LU011235
440.00	480.00	20.00	79.00	831-122	LU011243
450.00	490.00	20.00	79.00	831-123	LU011251
460.00	500.00	20.00	79.00	831-124	LU01126X
470.00	510.00	20.00	79.00	831-125	LU011278
480.00	520.00	20.00	79.00	831-126	LU011286
490.00	530.00	20.00	79.00	831-127	LU011294
500.00	540.00	20.00	79.00	831-128	LU011308

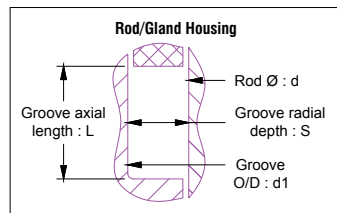
# Lofilm® — rod/gland seals

## Lofilm® — JW Chart 832

### Rod/gland sealing applications

Frequently used European range of metric (mm) sizes for Rod Seal Housings.

Equivalent to JW Chart 837 Chevron® range.



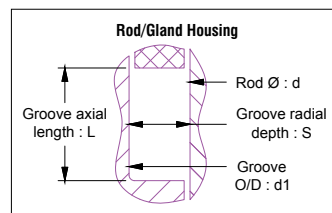
Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
20.00	30.00	5.00	18.50	832-020	LU020005
25.00	37.00	6.00	22.50	832-025	LU020013
28.00	40.00	6.00	22.50	832-028	LU020021
30.00	42.00	6.00	22.50	832-030	LU02003X
32.00	44.00	6.00	22.50	832-032	LU020048
35.00	47.00	6.00	22.50	832-035	LU020056
36.00	48.00	6.00	22.50	832-036	LU020064
40.00	52.00	6.00	22.50	832-040	LU020072
42.00	54.00	6.00	22.50	832-042	LU020080
45.00	60.00	7.50	22.50	832-045	LU020099
50.00	65.00	7.50	22.50	832-050	LU020102
55.00	70.00	7.50	22.50	832-055	LU020110
56.00	71.00	7.50	22.50	832-056	LU020129
60.00	75.00	7.50	22.50	832-060	LU020137
65.00	80.00	7.50	22.50	832-065	LU020145
70.00	85.00	7.50	22.50	832-070	LU020153
75.00	90.00	7.50	22.50	832-075	LU020161
80.00	95.00	7.50	22.50	832-080	LU02017X
85.00	100.00	7.50	22.50	832-085	LU020188
90.00	105.00	7.50	22.50	832-090	LU020196
100.00	115.00	7.50	30.00	832-100	LU02020X
110.00	125.00	7.50	30.00	832-110	LU020218
125.00	140.00	7.50	34.00	832-125	LU020226
140.00	155.00	7.50	34.00	832-140	LU020234
150.00	170.00	10.00	40.00	832-150	LU020242
160.00	180.00	10.00	40.00	832-160	LU020250
180.00	200.00	10.00	40.00	832-180	LU020269
200.00	220.00	10.00	40.00	832-200	LU020277

## Lofilm® — JW Chart 833

### Rod/gland sealing applications

Frequently used European range of metric (mm) sizes for Rod Seal Housings.

Equivalent to JW Chart 837 Chevron® range.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
20.00	32.00	6.00	22.50	833-020	LU030000
25.00	40.00	7.50	22.50	833-025	LU030019
30.00	45.00	7.50	22.50	833-030	LU030027
35.00	50.00	7.50	22.50	833-035	LU030035
40.00	55.00	7.50	22.50	833-040	LU030043
45.00	65.00	10.00	27.50	833-045	LU030051
50.00	70.00	10.00	30.00	833-050	LU03006X
55.00	75.00	10.00	30.00	833-055	LU030078
60.00	80.00	10.00	37.00	833-060	LU030086
65.00	85.00	10.00	40.00	833-065	LU030094
70.00	90.00	10.00	40.00	833-070	LU030108
75.00	95.00	10.00	40.00	833-075	LU030116
80.00	100.00	10.00	40.00	833-080	LU030124
90.00	110.00	10.00	40.00	833-090	LU030132
100.00	120.00	10.00	40.00	833-100	LU030140
110.00	130.00	10.00	40.00	833-110	LU030159
115.00	140.00	12.50	46.00	833-115	LU030167
125.00	150.00	12.50	46.00	833-125	LU030175
140.00	165.00	12.50	46.00	833-140	LU030183
150.00	180.00	15.00	60.00	833-150	LU030191
160.00	190.00	15.00	60.00	833-160	LU030205
180.00	210.00	15.00	60.00	833-180	LU030213
195.00	225.00	15.00	62.50	833-195	LU030221
200.00	230.00	15.00	60.00	833-200	LU03023X
220.00	250.00	15.00	62.50	833-220	LU030248
245.00	275.00	15.00	62.50	833-245	LU030256
270.00	300.00	15.00	62.50	833-270	LU030264
290.00	320.00	15.00	64.00	833-290	LU030272
320.00	360.00	20.00	78.00	833-320	LU030280
380.00	420.00	20.00	80.00	833-380	LU030299



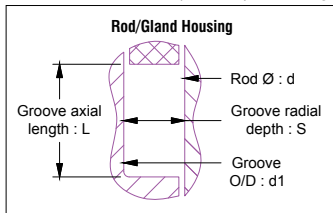
# Lofilm® — rod/gland seals

## Lofilm® — JW Chart 930 (inch sizes)

### Rod/gland sealing applications

Seal sets for non-adjustable housings.

JW established inch (fraction) size range.



Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
5/16	11/16	3/16	9/16	930-1	LU040014
3/8	3/4	3/16	9/16	930-2	LU040022
7/16	13/16	3/16	9/16	930-3	LU040030
1/2	7/8	3/16	9/16	930-4	LU040049
9/16	15/16	3/16	9/16	930-5	LU040057
5/8	1	3/16	9/16	930-6	LU040065
11/16	1 1/16	3/16	9/16	930-7	LU040073
5/8	1 1/8	1/4	7/8	930-8	LU040081
11/16	1 3/16	1/4	7/8	930-9	LU04009X
3/4	1 1/4	1/4	7/8	930-10	LU040103
13/16	1 5/16	1/4	7/8	930-11	LU040111
7/8	1 3/8	1/4	7/8	930-12	LU04012X
15/16	1 7/16	1/4	7/8	930-13	LU040138
1	1 1/2	1/4	7/8	930-14	LU040146
15/16	1 9/16	5/16	1 3/16	930-15	LU040154
1	1 5/8	5/16	1 3/16	930-16	LU040162
1 1/16	1 11/16	5/16	1 3/16	930-17	LU040170
1 1/8	1 3/4	5/16	1 3/16	930-18	LU040189
1 3/16	1 13/16	5/16	1 3/16	930-19	LU040197
1 1/4	1 7/8	5/16	1 3/16	930-20	LU040200
1 5/16	1 15/16	5/16	1 3/16	930-21	LU040219
1 3/8	2	5/16	1 3/16	930-22	LU040227
1 7/16	2 1/16	5/16	1 3/16	930-23	LU040235
1 1/2	2 1/8	5/16	1 3/16	930-24	LU040243
1 9/16	2 3/16	5/16	1 3/16	930-25	LU040251
1 5/8	2 1/4	5/16	1 3/16	930-26	LU04026X
1 11/16	2 5/16	5/16	1 3/16	930-27	LU040278
1 3/4	2 3/8	5/16	1 3/16	930-28	LU040286
1 13/16	2 7/16	5/16	1 3/16	930-29	LU040294
1 7/8	2 1/2	5/16	1 3/16	930-30	LU040308
1 15/16	2 9/16	5/16	1 3/16	930-31	LU040316
2	2 5/8	5/16	1 3/16	930-32	LU040324

Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
2	2 3/4	3/8	1 7/16	930-33	LU040332
2 1/8	2 7/8	3/8	1 7/16	930-34	LU040340
2 1/4	3	3/8	1 7/16	930-35	LU040359
2 3/8	3 1/8	3/8	1 7/16	930-36	LU040367
2 1/2	3 1/4	3/8	1 7/16	930-37	LU040375
2 5/8	3 3/8	3/8	1 7/16	930-38	LU040383
2 3/4	3 1/2	3/8	1 7/16	930-39	LU040391
2 7/8	3 5/8	3/8	1 7/16	930-40	LU040405
3	3 3/4	3/8	1 7/16	930-41	LU040413
3 1/8	3 7/8	3/8	1 7/16	930-42	LU040421
3 1/4	4	3/8	1 7/16	930-43	LU04043X
3 3/8	4 1/8	3/8	1 7/16	930-44	LU040448
3 1/2	4 1/4	3/8	1 7/16	930-45	LU040456
3 3/8	4 3/8	1/2	2	930-46	LU040464
3 1/2	4 1/2	1/2	2	930-47	LU040472
3 5/8	4 5/8	1/2	2	930-48	LU040480
3 3/4	4 3/4	1/2	2	930-49	LU040499
3 7/8	4 7/8	1/2	2	930-50	LU040502
4	5	1/2	2	930-51	LU040510
4 1/8	5 1/8	1/2	2	930-52	LU040529
4 1/4	5 1/4	1/2	2	930-53	LU040537
4 3/8	5 3/8	1/2	2	930-54	LU040545
4 1/2	5 1/2	1/2	2	930-55	LU040553
4 5/8	5 5/8	1/2	2	930-56	LU040561
4 3/4	5 3/4	1/2	2	930-57	LU04057X
4 7/8	5 7/8	1/2	2	930-58	LU040588
5	6	1/2	2	930-59	LU040596
5 1/8	6 1/8	1/2	2	930-60	LU04060X
5 1/4	6 1/4	1/2	2	930-61	LU040618
5 3/8	6 3/8	1/2	2	930-62	LU040626
5 1/2	6 1/2	1/2	2	930-63	LU040634
5 5/8	6 5/8	1/2	2	930-64	LU040642
5 3/4	6 3/4	1/2	2	930-65	LU040650
5 7/8	6 7/8	1/2	2	930-66	LU040669
6	7	1/2	2	930-67	LU040677
6	7 1/4	5/8	2 5/16	930-68	LU040685
6 1/4	7 1/2	5/8	2 5/16	930-69	LU040693
6 1/2	7 3/4	5/8	2 5/16	930-70	LU040707
6 3/4	8	5/8	2 5/16	930-71	LU040715
7	8 1/4	5/8	2 5/16	930-72	LU040723
7 1/4	8 1/2	5/8	2 5/16	930-73	LU040731

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# Lofilm® — rod/gland seals

## Lofilm® — JW Chart 930 (inch sizes) continued

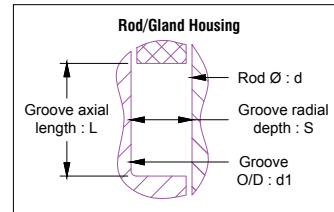
Nominal housing dimensions (inch)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
7 1/2	8 3/4	5/8	2 5/16	930-74	LU04074X
7 3/4	9	5/8	2 5/16	930-75	LU040758
8	9 1/4	5/8	2 5/16	930-76	LU040766
8 1/4	9 1/2	5/8	2 5/16	930-77	LU040774
8 1/2	9 3/4	5/8	2 5/16	930-78	LU040782
8 3/4	10	5/8	2 5/16	930-79	LU040790
9	10 1/4	5/8	2 5/16	930-80	LU040804
9 1/4	10 1/2	5/8	2 5/16	930-81	LU040812
9 1/2	10 3/4	5/8	2 5/16	930-82	LU040820
9 3/4	11	5/8	2 5/16	930-83	LU040839
10	11 1/4	5/8	2 5/16	930-84	LU040847
10 1/4	11 1/2	5/8	2 5/16	930-85	LU040855
10 1/2	11 3/4	5/8	2 5/16	930-86	LU040863
10 3/4	12	5/8	2 5/16	930-87	LU040871
11	12 1/4	5/8	2 5/16	930-88	LU04088X
11 1/4	12 1/2	5/8	2 5/16	930-89	LU040898
11 1/2	12 3/4	5/8	2 5/16	930-90	LU040901
11 3/4	13	5/8	2 5/16	930-91	LU04091X
12	13 1/4	5/8	2 5/16	930-92	LU040928
12 1/4	13 1/2	5/8	2 5/16	930-93	LU040936
12 1/2	13 3/4	5/8	2 5/16	930-94	LU040944
12 3/4	14	5/8	2 5/16	930-95	LU040952
13	14 1/4	5/8	2 5/16	930-96	LU040960
13 1/4	14 1/2	5/8	2 5/16	930-97	LU040979
13 1/2	14 3/4	5/8	2 5/16	930-98	LU040987
13 3/4	15	5/8	2 5/16	930-99	LU040995
14	15 1/4	5/8	2 5/16	930-100	LU041002
14 1/4	15 1/2	5/8	2 5/16	930-101	LU041010
14 1/2	15 3/4	5/8	2 5/16	930-102	LU041029
14 3/4	16	5/8	2 5/16	930-103	LU041037
15	16 1/4	5/8	2 5/16	930-104	LU041045
15 1/4	16 1/2	5/8	2 5/16	930-105	LU041053
15 1/2	16 3/4	5/8	2 5/16	930-106	LU041061
15 3/4	17	5/8	2 5/16	930-107	LU04107X
16	17 1/4	5/8	2 5/16	930-108	LU041088

## Lofilm® — JW Chart 931

### Rod/gland sealing applications

Seal sets for non-adjustable housings.

JW established metric (mm) size range.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
8.00	18.00	5.00	17.00	931-1	LU05001X
9.00	19.00	5.00	17.00	931-2	LU050028
10.00	20.00	5.00	17.00	931-3	LU050036
11.00	21.00	5.00	17.00	931-4	LU050044
12.00	22.00	5.00	17.00	931-5	LU050052
13.00	23.00	5.00	17.00	931-6	LU060015
14.00	24.00	5.00	17.00	931-7	LU060023
15.00	25.00	5.00	17.00	931-8	LU060031
13.00	26.00	6.50	21.50	931-9	LU06004X
14.00	27.00	6.50	21.50	931-10	LU060058
15.00	28.00	6.50	21.50	931-11	LU060066
16.00	29.00	6.50	21.50	931-12	LU060074
17.00	30.00	6.50	21.50	931-13	LU060082
18.00	31.00	6.50	21.50	931-14	LU060090
19.00	32.00	6.50	21.50	931-15	LU060104
20.00	33.00	6.50	21.50	931-16	LU060112
21.00	34.00	6.50	21.50	931-17	LU060120
22.00	35.00	6.50	21.50	931-18	LU060139
23.00	36.00	6.50	21.50	931-19	LU060147
24.00	37.00	6.50	21.50	931-20	LU060155
25.00	38.00	6.50	21.50	931-21	LU060163
23.00	39.00	8.00	33.00	931-22	LU060171
24.00	40.00	8.00	33.00	931-23	LU06018X
25.00	41.00	8.00	33.00	931-24	LU060198
26.00	42.00	8.00	33.00	931-25	LU060201
27.00	43.00	8.00	33.00	931-26	LU06021X
28.00	44.00	8.00	33.00	931-27	LU060228
29.00	45.00	8.00	33.00	931-28	LU060236
30.00	46.00	8.00	33.00	931-29	LU060244
31.00	47.00	8.00	33.00	931-30	LU060252
32.00	48.00	8.00	33.00	931-31	LU060260
33.00	49.00	8.00	33.00	931-32	LU060279
34.00	50.00	8.00	33.00	931-33	LU060287

Continued...

## Lofilm® — rod/gland seals

## Lofilm® — JW Chart 931 continued

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
35.00	51.00	8.00	33.00	931-34	LU060295
36.00	52.00	8.00	33.00	931-35	LU060309
37.00	53.00	8.00	33.00	931-36	LU060317
38.00	54.00	8.00	33.00	931-37	LU060325
39.00	55.00	8.00	33.00	931-38	LU060333
40.00	56.00	8.00	33.00	931-39	LU060341
41.00	57.00	8.00	33.00	931-40	LU06035X
42.00	58.00	8.00	33.00	931-41	LU060368
43.00	59.00	8.00	33.00	931-42	LU060376
44.00	60.00	8.00	33.00	931-43	LU060384
45.00	61.00	8.00	33.00	931-44	LU060392
46.00	62.00	8.00	33.00	931-45	LU060406
47.00	63.00	8.00	33.00	931-46	LU060414
48.00	64.00	8.00	33.00	931-47	LU060422
49.00	65.00	8.00	33.00	931-48	LU060430
50.00	66.00	8.00	33.00	931-49	LU060449
50.00	70.00	10.00	40.00	931-50	LU060457
52.00	72.00	10.00	40.00	931-51	LU060465
55.00	75.00	10.00	40.00	931-52	LU060473
56.00	76.00	10.00	40.00	931-52A	LU060481
57.00	77.00	10.00	40.00	931-53	LU06049X
60.00	80.00	10.00	40.00	931-54	LU060503
62.00	82.00	10.00	40.00	931-55	LU060511
63.00	83.00	10.00	40.00	931-55A	LU06052X
65.00	85.00	10.00	40.00	931-56	LU060538
67.00	87.00	10.00	40.00	931-57	LU060546
70.00	90.00	10.00	40.00	931-58	LU060554
72.00	92.00	10.00	40.00	931-59	LU060562
75.00	95.00	10.00	40.00	931-60	LU060570
77.00	97.00	10.00	40.00	931-61	LU060589
80.00	100.00	10.00	40.00	931-62	LU060597
82.00	102.00	10.00	40.00	931-63	LU060600
85.00	105.00	10.00	40.00	931-64	LU060619
87.00	107.00	10.00	40.00	931-65	LU060627
90.00	110.00	10.00	40.00	931-66	LU060635
90.00	115.00	12.50	48.50	931-67	LU060643
95.00	120.00	12.50	48.50	931-68	LU060651
100.00	125.00	12.50	48.50	931-69	LU06066X
105.00	130.00	12.50	48.50	931-70	LU060678
110.00	135.00	12.50	48.50	931-71	LU060686
115.00	140.00	12.50	48.50	931-72	LU060694
120.00	145.00	12.50	48.50	931-73	LU060708
125.00	150.00	12.50	48.50	931-74	LU060716

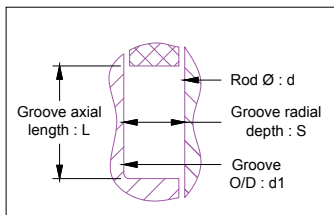
Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)		
130.00	155.00	12.50	48.50	931-75	LU060724
135.00	160.00	12.50	48.50	931-76	LU060732
140.00	165.00	12.50	48.50	931-77	LU060740
145.00	170.00	12.50	48.50	931-78	LU060759
150.00	175.00	12.50	48.50	931-79	LU060767
150.00	180.00	15.00	58.00	931-80	LU060775
155.00	185.00	15.00	58.00	931-81	LU060783
160.00	190.00	15.00	58.00	931-82	LU060791
165.00	195.00	15.00	58.00	931-83	LU060805
170.00	200.00	15.00	58.00	931-84	LU060813
175.00	205.00	15.00	58.00	931-85	LU060821
180.00	210.00	15.00	58.00	931-86	LU06083X
185.00	215.00	15.00	58.00	931-87	LU060848
190.00	220.00	15.00	58.00	931-88	LU060856
195.00	225.00	15.00	58.00	931-89	LU060864
200.00	230.00	15.00	58.00	931-90	LU060872
205.00	235.00	15.00	58.00	931-91	LU060880
210.00	240.00	15.00	58.00	931-92	LU060899
215.00	245.00	15.00	58.00	931-93	LU060902
220.00	250.00	15.00	58.00	931-94	LU060910
225.00	255.00	15.00	58.00	931-95	LU060929
230.00	260.00	15.00	58.00	931-96	LU060937
235.00	265.00	15.00	58.00	931-97	LU060945
240.00	270.00	15.00	58.00	931-98	LU060953
245.00	275.00	15.00	58.00	931-99	LU060961
250.00	280.00	15.00	58.00	931-100	LU06097X
255.00	285.00	15.00	58.00	931-101	LU060988
260.00	290.00	15.00	58.00	931-102	LU060996
265.00	295.00	15.00	58.00	931-103	LU061003
270.00	300.00	15.00	58.00	931-104	LU061011
280.00	310.00	15.00	58.00	931-105	LU06102X
290.00	320.00	15.00	58.00	931-106	LU061038
300.00	330.00	15.00	58.00	931-107	LU061046
310.00	340.00	15.00	58.00	931-108	LU061054
320.00	350.00	15.00	58.00	931-109	LU061062
330.00	360.00	15.00	58.00	931-110	LU061070
340.00	370.00	15.00	58.00	931-111	LU061089
350.00	380.00	15.00	58.00	931-112	LU061097
360.00	390.00	15.00	58.00	931-113	LU061100
370.00	400.00	15.00	58.00	931-114	LU061119
380.00	410.00	15.00	58.00	931-115	LU061127
390.00	420.00	15.00	58.00	931-116	LU061135
400.00	430.00	15.00	58.00	931-117	LU061143

# Lion® Expanding Packing — rod/gland seals

## Lion® Expanding Packing

### Rod/gland sealing applications

Endless or Split packing sets for shim adjustable housings.



JW recommended metric (mm) and inch (fraction) sizes in all materials for all new design housings

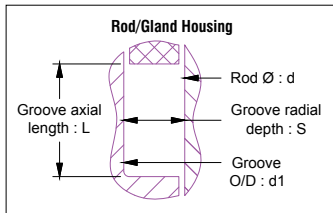
Nominal housing dimensions				
Rod Ø range (d) Above	Rod Ø range (d) Up to & including	Radial depth (S)	Up to 35MPa	Above 35 and up to 62MPa
			Set composition - Number of rings	
			1 off Header 2 off Intermediate 1 off Gland	1 off Header 3 off Intermediate 1 off Gland
			Axial length (L)	
<b>Metric (mm) sizes</b>				
25.00	100.00	10.00	58.00	61.00
100.00	175.00	12.50	73.00	93.00
175.00	300.00	15.00	87.00	111.00
300.00	600.00	20.00	115.00	148.00
600.00	1200.00	25.00	145.00	183.00
1200.00	-	30.00	175.00	224.00
<b>Inch sizes</b>				
1	4	3/8	1 3/4	2 1/4
4	7	1/2	2 1/4	3
7	12	5/8	3	3 3/4
12	18	3/4	4 1/4	5 1/2
18	24	7/8	5	6 3/8
24	48	1	5 3/4	7 3/8
48	-	1 1/4	7 1/8	9 1/8

# Lofilm® HD — rod/gland seals

## Lofilm® HD

### Rod/gland sealing applications

Split seal sets for non-adjustable housings.



JW preferred sizes in standard materials for standard metric and *inch* housings

Nominal housing dimensions			
Shaft Ø range (d)		Radial depth (S)	Axial length (L)
Above	Up to & Including		
<b>Metric (mm) sizes</b>			
500.00	1000.00	25.00	112.50
1000.00		30.00	135.00
<b>Inch sizes</b>			
19 5/8	24	7/8	3.313
24	-	1	4. 1/2

Split packing sets for standard metric and *inch* housing sections are available for the diameter ranges shown in the chart below

Nominal housing dimensions			
Outside Ø range (d1)		Radial depth (S)	Axial length (L)
From	To		
<b>Metric (mm) sizes</b>			
540.00	765.00	20.00	90.00
540.00	1935.00	25.00	112.50
540.00	1935.00	30.00	135.00
750.00	1935.00	32.00	144.00
<b>Inch sizes</b>			
20 1/2	30	3/4	3.366
20 1/2	30 1/8	7/8	3 15/16
20 1/2	30 1/8	1	4.429
20 1/2	30 1/8	1 1/8	5 1/16

Sizes available in standard materials for non-standard metric and *inch* housings

Nominal housing dimensions			
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Axial length (L)
431.80	469.90	19.05	114.30
520.00	560.00	20.00	90.00
557.00	607.00	25.00	112.50
560.00	610.00	25.00	112.50
23.228	25 1/4	1.011	4 1/2
600.00	640.00	20.00	90.00
610.00	670.00	30.00	135.00
635.60	680.00	22.20	100.00
640.00	680.00	20.00	90.00
700.00	744.00	22.00	100.00
735.60	780.00	22.20	100.00
740.00	780.00	20.00	90.00
750.00	800.00	25.00	112.50
900.00	950.00	25.00	112.50
915.60	960.00	22.20	100.00
920.00	960.00	20.00	90.00
1000.00	1050.00	25.00	112.50
40 3/8	42 1/8	7/8	3 15/16
44	46	1	4 1/2
1140.00	1200.00	30.00	135.00
1155.60	1200.00	22.20	100.00
1290.00	1350.00	30.00	135.00
1300.00	1350.00	25.00	112.50
1305.00	1355.00	25.00	100.00
1310.00	1355.00	22.50	100.00
1690.00	1740.00	25.00	112.50
70	72 1/2	1 1/4	10
80 1/4	82 3/4	1 1/4	10

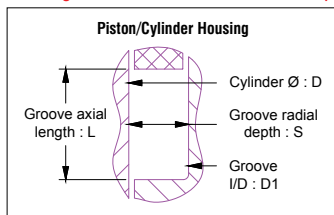
# Lionsele® P — piston seals

## Lionsele® P — JW Chart 309

### Piston/cylinder sealing applications

JW established range of metric (mm) piston seal housing sizes.

Housing dimensions conform to the requirements of BS ISO 7425-1.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
250.00	229.00	10.50	8.10	309-25001050	LY001048
320.00	299.00	10.50	8.10	309-32001050	LY001129
400.00	375.50	12.25	8.10	309-40001225	LY00120X

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
12.00	7.10	2.45	2.20	309-01200245	LY000041
16.00	8.50	3.75	3.20	309-01600375	LY000084
20.00	12.50	3.75	3.20	309-02000375	LY000165
25.00	17.50	3.75	3.20	309-02500375	LY000246
30.00	22.50	3.75	3.20	309-03000375	LY000262
32.00	24.50	3.75	3.20	309-03200375	LY000327
35.00	27.50	3.75	3.20	309-03500375	LY00036X
40.00	29.00	5.50	4.20	309-04000550	LY000408
45.00	34.00	5.50	4.20	309-04500550	LY000432
50.00	39.00	5.50	4.20	309-05000550	LY000483
52.00	41.00	5.50	4.20	309-052041042	LY000386
55.00	44.00	5.50	4.20	309-05500550	LY000491
60.00	49.00	5.50	4.20	309-06000550	LY000505
63.00	52.00	5.50	4.20	309-06300550	LY000564
65.00	54.00	5.50	4.20	309-06500550	LY000580
70.00	59.00	5.50	4.20	309-07000550	LY000610
80.00	64.50	7.75	6.30	309-08000775	LY000645
90.00	74.50	7.75	6.30	309-09000775	LY00067X
100.00	84.50	7.75	6.30	309-10000775	LY000726
105.00	89.50	7.75	6.30	309-10500775	LY000742
110.00	94.50	7.75	6.50	309-11000775	LY000793
115.00	99.50	7.75	6.30	309-11500775	LY000815
120.00	104.50	7.75	6.30	309-12000775	LY000823
125.00	109.50	7.75	6.30	309-12500775	LY000807
127.00	111.50	7.75	6.30	309-12700775	LY000831
140.00	119.00	10.50	8.10	309-14001050	LY00084X
150.00	129.00	10.50	8.10	309-15001050	LY000858
160.00	139.00	10.50	8.10	309-16001050	LY000882
170.00	149.00	10.50	8.10	309-17001050	LY000890
180.00	159.00	10.50	8.10	309-18001050	LY000912
190.00	169.00	10.50	8.10	309-19001050	LY000920
200.00	179.00	10.50	8.10	309-20001050	LY000963

# Lionsele® SP — piston seals

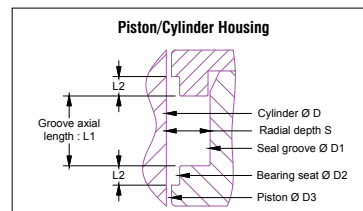
## Lionsele® SP — JW Chart 311

### Piston/cylinder sealing applications

*JW established range of metric (mm) housing size range.*

*Dimensions conform to the requirements of BS ISO 6547,*

*Hydraulic fluid power - Cylinders - Piston seal housings incorporating bearing rings.*



Nominal housing dimensions (mm)							JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Seal housing axial length (L1)	Bearing seat axial length (L2)	Bearing seat Ø (D2)	Piston Ø (D3)		
25.00	17.00	4.00	10.00	4.00	22.00	24.00	311-025017100	ZJ000006
25.00	15.00	5.00	12.50	4.00	22.00	24.00	311-025015125	ZJ000057
32.00	24.00	4.00	10.00	4.00	29.00	31.00	311-032024100	ZJ000103
32.00	22.00	5.00	12.50	4.00	29.00	31.00	311-032022125	ZJ000154
40.00	32.00	4.00	10.00	4.00	37.00	39.00	311-040032100	ZJ000219
40.00	30.00	5.00	12.50	4.00	37.00	39.00	311-040030125	ZJ000227
40.00	26.00	7.00	15.50	2.60	36.00	39.00	311-040026155	ZJ000162
50.00	40.00	5.00	12.50	4.00	17.00	49.00	311-050040125	ZJ000235
50.00	35.00	7.50	20.00	5.00	46.00	48.50	311-050035200	ZJ000243
50.00	34.00	8.00	18.40	6.40	45.40	48.70	311-050034184	ZJ000251
50.00	34.00	8.00	20.50	3.10	46.00	49.00	311-050034205	ZJ00026X
50.00	38.00	6.00	20.50	4.20	46.00	49.40	311-050038205	ZJ000472
55.00	39.00	8.00	18.40	6.40	50.40	53.70	311-055039184	ZJ000804
55.00	39.00	8.00	20.50	3.10	51.00	54.00	311-055039205	ZJ000855
60.00	44.00	8.00	18.40	6.40	55.40	58.70	311-060044184	ZJ000863
60.00	44.00	8.00	20.50	3.10	56.00	59.00	311-060044205	ZJ000871
60.00	48.00	6.00	20.50	4.20	56.00	59.40	311-060048205	ZJ000901
63.00	53.00	5.00	12.50	4.00	60.00	62.00	311-063053125	ZJ000308
63.00	48.00	7.50	20.00	5.00	59.00	61.50	311-063048200	ZJ000359
63.00	47.00	8.00	18.40	6.40	58.40	61.50	311-063047184	ZJ000952
63.00	47.00	8.00	19.40	6.40	58.40	61.70	311-063047194	ZJ001002
63.00	47.00	8.00	20.50	3.10	59.00	62.00	311-063047205	ZJ001053
63.00	51.00	6.00	20.50	4.20	59.00	62.40	311-063051205	ZJ000340
65.00	49.00	8.00	20.50	3.10	61.00	64.00	311-065049205	ZJ001010
65.00	50.00	7.50	18.40	6.40	60.40	63.70	311-065050184	ZJ00107X
70.00	50.00	10.00	22.40	6.40	64.20	68.30	311-070050224	ZJ001207
70.00	58.00	6.00	20.50	4.20	66.00	69.40	311-070058205	ZJ001258
75.00	55.00	10.00	22.40	6.40	69.20	73.30	311-075055224	ZJ001304
80.00	65.00	7.50	20.00	5.00	76.00	78.50	311-080065200	ZJ000405
80.00	60.00	10.00	25.00	6.30	75.00	78.00	311-080060250	ZJ000456
80.00	60.00	10.00	22.40	6.40	74.20	78.30	311-080060224	ZJ001355
80.00	62.00	9.00	22.50	3.60	76.00	79.00	311-080062225	ZJ001401
80.00	66.00	7.00	22.50	5.20	76.00	79.40	311-080066225	ZJ000464
85.00	65.00	10.00	22.40	6.40	79.20	83.30	311-085065224	ZJ000480
90.00	70.00	10.00	22.40	6.40	84.20	88.30	311-090070224	ZJ000545
90.00	72.00	9.00	22.50	3.60	86.00	89.00	311-090072225	ZJ000677

Continued...

# Lionsele® SP — piston seals

## Lionsele® SP — JW Chart 311 *continued*

Nominal housing dimensions (mm)							JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Seal housing axial length (L1)	Bearing seat axial length (L2)	Bearing seat Ø (D2)	Piston Ø (D3)		
90.00	76.00	7.00	22.50	5.20	86.00	89.40	311-090076225	ZJ000758
95.00	75.00	10.00	22.40	6.40	89.20	93.30	311-095075224	ZJ000847
100.00	85.00	7.50	20.00	5.00	96.00	98.50	311-100085200	ZJ000502
100.00	80.00	10.00	25.00	6.30	95.00	98.00	311-100080250	ZJ000553
100.00	75.00	12.50	22.40	6.40	93.20	98.00	311-100075224	ZJ000898
100.00	82.00	9.00	22.50	3.60	96.00	99.00	311-100082225	ZJ000693
100.00	86.00	7.00	22.50	5.20	96.00	99.40	311-100086225	ZJ00074X
105.00	80.00	12.50	22.40	6.40	98.10	103.00	311-105080224	ZJ001274
110.00	85.00	12.50	22.40	6.40	103.10	108.00	311-110085224	ZJ001312
110.00	92.00	9.00	22.50	3.60	106.00	109.00	311-110092225	ZJ000073
125.00	105.00	10.00	25.00	6.30	120.00	123.00	311-125105250	ZJ00060X
125.00	100.00	12.50	32.00	10.00	119.00	123.00	311-125100320	ZJ000650
125.00	100.00	12.50	25.40	6.40	118.10	123.00	311-125100254	ZJ00009X
130.00	105.00	12.50	25.40	6.40	123.10	129.00	311-130105254	ZJ001363
140.00	115.00	12.50	25.40	6.40	133.00	138.00	311-140115254	ZJ001398
140.00	118.00	11.00	26.50	5.10	156.00	159.00	311-140118265	ZJ001460
140.00	123.00	8.50	26.50	7.20	136.00	139.40	311-140123265	ZJ001509
150.00	125.00	12.50	25.40	9.50	142.60	147.50	311-150125254	ZJ00155X
150.00	128.00	11.00	26.50	5.10	146.00	149.00	311-150128265	ZJ001606
150.00	133.00	8.50	26.50	7.20	146.00	149.40	311-150133265	ZJ001657
160.00	140.00	10.00	25.00	6.30	155.00	158.00	311-160140250	ZJ000707
160.00	130.00	15.00	25.40	6.40	153.00	157.50	311-160130254	ZJ001703
160.00	135.00	12.50	25.00	6.40	153.00	158.00	311-160135250	ZJ001754
160.00	138.00	11.00	26.50	5.10	156.00	159.00	311-160138265	ZJ001800
160.00	143.00	8.50	26.50	7.20	156.00	159.40	311-160143265	ZJ001851
180.00	155.00	12.50	25.40	10.00	154.00	158.00	311-180155254	ZJ001908
200.00	175.00	12.50	25.40	12.70	191.60	197.00	311-200175254	ZJ001959
250.00	225.00	12.50	25.40	12.70	241.60	247.00	311-250225254	ZJ001983



# Lionsele® U3 — piston seals

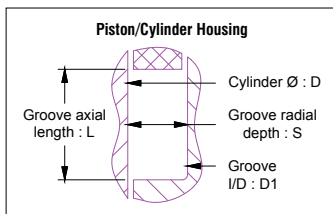
## Lionsele® U3 — JW Chart 314

### Piston/cylinder sealing applications

# -1; JW established range of metric (mm) piston seal housing sizes.

# -2; Dimensions conform to BS ISO 5597 Tables 2, 3 & 7.  
L2 (medium) axial length housings for piston seals.

#- 3; Dimensions conform to BS ISO 5597 Tables 2, 4 & 7.  
Axial length housings for piston seals for cylinders to ISO 6020-2.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
16.00 # -2	8.00	4.00	6.30	314-008016063	UC002008
20.00 # -2	12.00	4.00	6.30	314-012020063	UC002016
22.00 # -1	12.00	5.00	9.00	314-012022090	UC002024
25.00 # -2	17.00	4.00	6.30	314-017025063	UC002032
25.00 # -3	18.00	3.50	5.60	314-018025056	UC002040
30.00 # -1	15.00	7.50	11.00	314-015030110	UC002059
30.00 # -1	20.00	5.00	9.00	314-020030090	UC002067
32.00 # -2	24.00	4.00	6.30	314-024032063	UC002075
32.00 # -3	25.00	3.50	5.60	314-025032056	UC002083
35.00 # -1	25.00	5.00	8.00	314-025035080	UC002091
40.00 # -1	30.00	5.00	11.00	314-030040110	UC002105
40.00 # -2	32.00	4.00	6.30	314-032040063	UC002113
40.00 # -1	33.00	3.50	9.00	314-033040090	UC002121
50.00 # -1	35.00	7.50	11.00	314-035050110	UC00213X
50.00 # -2	40.00	5.00	8.00	314-040050080	UC002148
50.00 # -1	40.00	5.00	11.00	314-040050110	UC002156
50.00 # -1	42.00	4.00	6.30	314-042050063	UC002164
60.00 # -1	50.00	5.00	11.00	314-050060110	UC002172
63.00 # -2	53.00	5.00	8.00	314-053063080	UC002180
63.00 # -1	53.00	5.00	13.00	314-053063130	UC002199
63.00 # -3	55.00	4.00	6.30	314-055063063	UC002202
70.00 # -1	60.00	5.00	13.00	314-060070130	UC002210
80.00 # -2	65.00	7.50	12.50	314-065080125	UC002229
80.00 # -1	65.00	7.50	13.00	314-065080130	UC002237
80.00 # -3	70.00	5.00	7.50	314-070080075	UC002245
80.00 # -1	70.00	5.00	13.00	314-070080130	UC002253
90.00 # -1	75.00	7.50	13.00	314-075090130	UC002261
100.00 # -1	80.00	10.00	13.00	314-080100130	UC00227X
100.00 # -2	85.00	7.50	12.50	314-085100125	UC002288

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
100.00 # -1	85.00	7.50	13.00	314-085100130	UC002296
100.00 # -3	90.00	5.00	7.50	314-090100075	UC00230X
105.00 # -1	90.00	7.50	13.00	314-090105130	UC002318
120.00 # -1	100.00	10.00	13.00	314-100120130	UC002326
125.00 # -2	105.00	10.00	16.00	314-105125160	UC002334
125.00 # -3	110.00	7.50	10.60	314-110125106	UC002342
150.00 # -1	130.00	10.00	16.00	314-130150160	UC002350
160.00 # -2	140.00	10.00	16.00	314-140160160	UC002369
160.00 # -3	145.00	7.50	10.60	314-145160106	UC002377
200.00 # -2	175.00	12.50	20.00	314-175200200	UC002385
200.00 # -1	180.00	10.00	16.00	314-180200160	UC002393
200.00 # -3	185.00	7.50	10.60	314-185200106	UC002407
250.00 # -1	225.00	12.50	20.00	314-225250200	UC002415

# Solosele® S — piston seals

## Solosele® S — JW Chart 312

### Piston/cylinder sealing applications

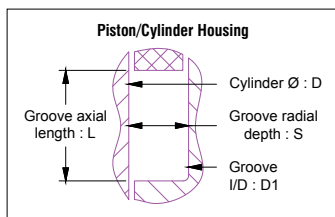
JW established range of metric (mm) piston seal housing sizes

# 1; Dimensions conform to BS ISO 5597 Tables 2, 3 & 7.

L1 (short) axial length housings for piston seals.

# 2; Dimensions conform to BS ISO 5597 Tables 2, 3 & 7.

L2 (medium) axial length housings for piston seals.



Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
16.00 #1	8.00	4.00	6.30	312-008016063	SL040018
20.00 #1	12.00	4.00	6.30	312-012020063	SL040050
25.00	12.00	6.50	8.50	312-012025085	SL04000X
25.00 #1	15.00	5.00	6.30	312-015025063	SL040069
25.00	15.00	5.00	8.00	312-015025080	SL040077
25.00	17.00	4.00	6.30	312-017025063	SL040085
30.00	17.00	6.50	11.00	312-017030110	SL045001
32.00	19.00	6.50	11.00	312-019032110	SL041006
32.00 #1	22.00	5.00	6.30	312-022032063	SL040093
32.00 #2	22.00	5.00	8.00	312-022032080	SL042010
32.00 #1	24.00	4.00	6.30	312-024032063	SL042029
40.00	24.00	8.00	13.00	312-024040130	SL042002
40.00 #1	30.00	5.00	6.30	312-030040063	SL042037
40.00 #2	30.00	5.00	8.00	312-030040080	SL042045
40.00 #1	32.00	4.00	6.30	312-032040063	SL042053
45.00	29.00	8.00	13.00	312-029045130	SL043009
48.00	32.00	8.00	13.00	312-032048130	SL044005
50.00	34.00	8.00	13.00	312-034050130	SL046008
50.00 #1	35.00	7.50	9.50	312-035050095	SL042061
50.00 #2	35.00	7.50	12.50	312-035050125	SL04207X
50.00 #1	40.00	5.00	6.30	312-040050063	SL042088
50.00 #2	40.00	5.00	8.00	312-040050080	SL042096
55.00	39.00	8.00	13.00	312-039055130	SL047004
60.00	40.00	10.00	25.00	312-040060250	SL002302
60.00	44.00	8.00	13.00	312-044060130	SL048000
63.00 #1	48.00	7.50	9.50	312-048063095	SL042207
63.00 #2	48.00	7.50	12.50	312-048063125	SL042215
63.00 #1	53.00	5.00	6.30	312-053063063	SL042223
63.00 #2	53.00	5.00	8.00	312-053063080	SL042231
63.00	47.00	8.00	13.00	312-047063130	SL049007

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
65.00	50.00	7.50	13.00	312-050065130	SL040107
70.00	50.00	10.00	25.00	312-050070250	SL002353
70.00	50.00	10.00	16.00	312-050070160	SL041103
75.00	55.00	10.00	16.00	312-055075160	SL04210X
80.00 #1	60.00	10.00	12.50	312-060080125	SL04224X
80.00 #2	60.00	10.00	16.00	312-060080160	SL043106
80.00	60.00	10.00	25.00	312-060080250	SL00240X
80.00 #1	65.00	7.50	9.50	312-065080095	SL043122
80.00 #2	65.00	7.50	12.50	312-065080125	SL043130
83.00	63.00	10.00	16.00	312-063083160	SL044102
85.00	65.00	10.00	16.00	312-065085160	SL045109
90.00 #2	70.00	10.00	16.00	312-070090160	SL046105
95.00	75.00	10.00	16.00	312-075095160	SL047101
100.00	75.00	12.50	16.00	312-075100160	SL048108
100.00	80.00	10.00	25.00	312-080100250	SL002450
100.00 #1	80.00	10.00	12.50	312-080100125	SL048116
100.00 #2	80.00	10.00	16.00	312-080100160	SL049104
100.00 #1	85.00	7.50	9.50	312-085100095	SL048124
100.00 #1	85.00	7.50	12.50	312-085100125	SL048132
105.00	80.00	12.50	16.00	312-080105160	SL040204
110.00	85.00	12.50	16.00	312-085110160	SL040212
110.00	90.00	10.00	25.00	312-090110250	SL002558
115.00	90.00	12.50	18.00	312-090115180	SL040220
120.00	95.00	12.50	18.00	312-095120180	SL040239
125.00 #1	100.00	12.50	16.00	312-100125160	SL048302
125.00	100.00	12.50	18.00	312-100125180	SL040247
125.00	100.00	12.50	20.00	312-100125200	SL048310
125.00	100.00	12.50	30.00	312-100125300	SL002604
125.00 #1	105.00	10.00	12.50	312-105125125	SL048329
125.00 #2	105.00	10.00	16.00	312-105125160	SL048337
130.00	105.00	12.50	18.00	312-105130180	SL040255
135.00	110.00	12.50	18.00	312-110135180	SL040263
138.00	110.00	14.00	18.00	312-110138180	SL040271
140.00	120.00	10.00	18.00	312-120140180	SL04028X
145.00	120.00	12.50	18.00	312-120145180	SL040298
150.00	120.00	15.00	38.00	312-120150380	SL002655
150.00	125.00	12.50	18.00	312-125150180	SL040301
155.00	130.00	12.50	18.00	312-130155180	SL04031X
160.00	130.00	15.00	18.00	312-130160180	SL040328
160.00	135.00	12.50	16.00	312-135160160	SL048345
160.00	135.00	12.50	20.00	312-135160200	SL048353
160.00 #1	140.00	10.00	12.50	312-140160125	SL048361

Continued...

## Solosele® S — piston seals

## Solosele® S — JW Chart 312 continued

Nominal housing dimensions (mm)				JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Axial length (L)		
160.00 #2	140.00	10.00	16.00	312-140160160	SL04837X
200.00 #1	170.00	15.00	20.00	312-170200200	SL048388
200.00 #2	170.00	15.00	25.00	312-170200250	SL048396
200.00 #1	175.00	12.50	16.00	312-178200160	SL04840X
200.00 #2	175.00	12.50	20.00	312-175200200	SL048418
250.00 #1	220.00	15.00	20.00	312-220250200	SL048426
250.00 #2	220.00	15.00	25.00	312-220250250	SL048434
250.00 #1	225.00	12.50	16.00	312-225250160	SL048442
250.00 #2	225.00	12.50	20.00	312-225250200	SL048450
320.00 #1	290.00	15.00	20.00	312-290320200	SL048469
320.00 #2	290.00	15.00	25.00	312-290320250	SL048477
400.00 #1	360.00	20.00	25.00	312-360400250	SL048485
400.00 #2	360.00	20.00	32.00	312-360400320	SL048493
500.00 #1	460.00	20.00	25.00	312-460500250	SL048507
500.00 #2	460.00	20.00	32.00	312-460500320	SL048515

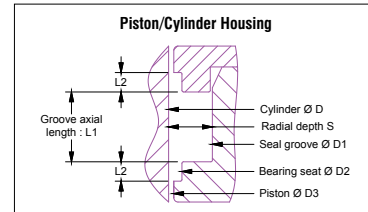
# Solosele® SW — piston seals

## Solosele® SW — JW Chart 313

**Piston/cylinder sealing applications**

**Seal assemblies suitable for split-type piston heads.**

*JW established range of metric (mm) housing sizes.*



Nominal housing dimensions (mm)							JW Part Number	JW Order Number (Endless)
Cylinder Ø (D)	Inside Ø (D1)	Radial depth (S)	Seal housing axial length (L1)	Bearing seat axial length (L2)	Bearing seat Ø (D2)	Piston Ø (D3)		
25.00	12.00	6.50	12.00	6.35	21.45	23.75	313-012025120	SL040336
30.00	17.00	6.50	15.00	6.35	26.45	28.95	313-017030150	SL040344
32.00	19.00	6.50	15.00	6.35	28.45	30.95	313-019032150	SL040352
40.00	24.00	8.00	18.00	6.35	35.40	38.65	313-024040180	SL040360
45.00	29.00	8.00	18.00	6.35	40.40	43.65	313-029045180	SL040379
48.00	32.00	8.00	18.00	6.35	43.35	46.65	313-032048180	SL040387
50.00	34.00	8.00	18.00	6.35	45.40	48.65	313-034050180	SL040395
55.00	39.00	8.00	18.00	6.35	50.40	53.65	313-039055180	SL040409
60.00	44.00	8.00	18.00	6.35	55.40	58.65	313-044060180	SL040417
63.00	47.00	8.00	18.00	6.35	58.40	61.65	313-047063180	SL040425
65.00	50.00	7.50	18.00	6.35	60.40	63.65	313-050065180	SL040433
70.00	50.00	10.00	22.00	6.35	64.15	68.35	313-050070220	SL040441
75.00	55.00	10.00	22.00	6.35	69.15	73.35	313-055075220	SL04045X
80.00	60.00	10.00	22.00	6.35	74.15	78.35	313-060080220	SL040468
83.00	63.00	10.00	22.00	6.35	77.15	81.35	313-063083220	SL040476
85.00	65.00	10.00	22.00	6.35	79.15	83.35	313-065085220	SL040484
90.00	70.00	10.00	22.00	6.35	84.15	88.35	313-070090220	SL040492
95.00	75.00	10.00	22.00	6.35	89.15	93.30	313-075095220	SL040506
100.00	75.00	12.50	22.00	6.35	93.15	98.00	313-075100220	SL040514
100.00	80.00	10.00	22.00	6.35	94.15	98.35	313-080100220	SL040522
105.00	80.00	12.50	22.00	6.35	98.10	103.00	313-080105220	SL040530
110.00	85.00	12.50	22.00	6.35	103.10	108.00	313-085110220	SL040549
115.00	90.00	12.50	22.00	6.35	108.10	113.00	313-090115220	SL040557
120.00	95.00	12.50	22.00	6.35	113.10	118.00	313-095120220	SL040565
125.00	100.00	12.50	25.00	6.35	117.80	123.00	313-100125250	SL040573
130.00	105.00	12.50	25.00	6.35	123.10	128.00	313-105130250	SL040581
135.00	110.00	12.50	25.00	6.35	128.00	133.00	313-110135250	SL04059X
138.00	110.00	14.00	25.00	6.35	131.00	136.00	313-110138250	SL040603
140.00	120.00	10.00	25.00	6.35	134.05	138.35	313-120140250	SL040611
145.00	120.00	12.50	25.00	6.35	138.30	143.00	313-120145250	SL04062X
150.00	125.00	12.50	25.00	6.35	143.00	148.00	313-125150250	SL040638
155.00	130.00	12.50	25.00	6.35	148.00	153.00	313-130155250	SL040646
160.00	130.00	15.00	25.00	6.35	153.00	158.00	313-130160250	SL040654

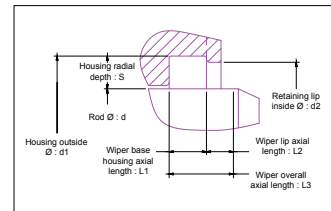
# Lionsele® W1 — wipers

## Lionsele® W1 — JW Chart 315

### Wiper rings

JW established range of metric (mm) housing sizes.

Dimensions conform to the requirements of Table 1; Type A Wiper housings of BS ISO 6195 Fluid power systems and components - Cylinder-rod-wiper ring housings in reciprocating applications - Dimensions and tolerances.



Nominal housing dimensions (mm)							JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Wiper base housing axial length (L1)	Wiper lip axial length (L2)	Wiper overall axial length (ref) (L3)	Retainer Ø (d2)		
16.00	24.00	4.00	4.00	6.00	10.00	22.00	315-016024040	WU030003
16.00	24.00	4.00	5.00	7.00	12.00	21.50	315-016024050	WU030054
18.00	26.00	4.00	4.00	6.00	10.00	24.00	315-018026040	WU030100
20.00	28.00	4.00	5.00	7.00	12.00	25.50	315-020028050	WU030151
22.00	30.00	4.00	5.00	7.00	12.00	27.50	315-022030050	WU030208
25.00	33.00	4.00	4.00	6.00	10.00	31.00	315-025033040	WU030259
25.00	33.00	4.00	5.00	7.00	12.00	30.50	315-025033050	WU030305
28.00	36.00	4.00	4.00	6.00	10.00	34.00	315-028036040	WU030356
32.00	40.00	4.00	5.00	7.00	12.00	37.50	315-032040050	WU030402
35.00	43.00	4.00	4.00	6.00	10.00	41.00	315-035043040	WU030453
36.00	44.00	4.00	4.00	6.00	10.00	42.00	315-036044040	WU03050X
36.00	44.00	4.00	5.00	7.00	12.00	41.50	315-036044050	WU030550
40.00	48.00	4.00	4.00	6.00	10.00	46.00	315-040048040	WU030607
40.00	48.00	4.00	5.00	7.00	12.00	45.50	315-040048050	WU030658
45.00	53.00	4.00	4.00	6.00	10.00	51.00	315-045053040	WU030704
45.00	53.00	4.00	5.00	7.00	12.00	50.50	315-045053050	WU030755
50.00	58.00	4.00	4.00	6.00	10.00	56.00	315-050058040	WU030801
55.00	63.00	4.00	4.00	6.00	10.00	61.00	315-055063040	WU030852
56.00	64.00	4.00	4.00	6.00	10.00	62.00	315-056064040	WU030909
56.00	66.00	5.00	6.30	8.80	15.10	63.00	315-056066063	WU03095X
60.00	68.00	4.00	4.00	6.00	10.00	66.00	315-060068040	WU03100X
63.00	71.00	4.00	4.00	6.00	10.00	69.00	315-063071040	WU031050
63.00	73.00	5.00	6.30	8.80	15.10	70.00	315-063073063	WU031107
65.00	73.00	4.00	4.00	6.00	10.00	71.00	315-065073040	WU031158
70.00	78.00	4.00	4.00	6.00	10.00	76.00	315-070078040	WU031204
70.00	80.00	5.00	6.30	8.80	15.10	77.00	315-070080063	WU031255
75.00	83.00	4.00	4.00	6.00	10.00	81.00	315-075083040	WU031301
80.00	88.00	4.00	4.00	6.00	10.00	86.00	315-080088040	WU031352
80.00	90.00	5.00	6.30	8.80	15.10	87.00	315-080090063	WU031409
85.00	93.00	4.00	4.00	6.00	10.00	91.00	315-085093040	WU03145X
90.00	98.00	4.00	4.00	6.00	10.00	96.00	315-090098040	WU031506
90.00	100.00	5.00	6.30	8.80	15.10	97.00	315-090100063	WU031557
100.00	108.00	4.00	4.00	6.00	10.00	106.00	315-100108040	WU031603
100.00	115.00	7.50	9.50	13.30	22.80	110.00	315-100115095	WU031654
110.00	122.00	6.00	5.50	8.50	14.00	119.00	315-110122055	WU031700
110.00	125.00	7.50	9.50	13.30	22.80	120.00	315-110125095	WU031751
120.00	132.00	6.00	5.50	8.50	14.00	129.00	315-120132055	WU031808
125.00	140.00	7.50	9.50	13.30	22.80	135.00	315-125140095	WU031859
140.00	152.00	6.00	5.50	8.50	14.00	149.00	315-140152055	WU031905
140.00	155.00	7.50	9.50	13.30	22.80	150.00	315-140155095	WU031956
160.00	175.00	7.50	9.50	13.30	22.80	170.00	315-160175095	WU032057
180.00	195.00	7.50	9.50	13.30	22.80	190.00	315-180195095	WU032103
200.00	215.00	7.50	9.50	13.30	22.80	210.00	315-200215095	WU032154

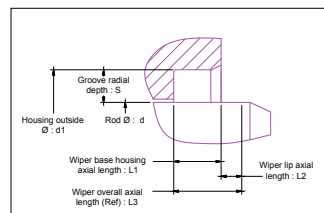
# Lionsele® W2 — wipers

## Lionsele® W2 — JW Chart 316

### Wiper rings

JW established range of metric (mm) housing sizes.

Dimensions conform to the requirements of Table 2 ; Type B Wiper housings of BS ISO 6195 Fluid power systems and components - Cylinder-rod-wiper ring housings in reciprocating applications - Dimensions and tolerances.



Nominal housing dimensions (mm)						JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Wiper base housing axial length (L1)	Wiper lip axial length (L2)	Wiper overall axial length (ref) (L3)		
10.00	20.00	5.00	5.00	8.00	13.00	316-010020050	WU050055
12.00	22.00	5.00	5.00	11.00	16.00	316-012022050	WU050012
16.00	22.00	3.00	3.00	11.00	14.00	316-016022030	WU050020
16.00	26.00	5.00	5.00	11.00	16.00	316-016026050	WU050152
18.00	28.00	5.00	7.00	11.00	18.00	316-018028070	WU050209
20.00	30.00	5.00	7.00	11.00	18.00	316-020030070	WU05025X
22.00	32.00	5.00	7.00	11.00	18.00	316-022032070	WU050306
25.00	35.00	5.00	5.00	11.00	16.00	316-025035050	WU050357
25.00	35.00	5.00	7.00	11.00	18.00	316-025035070	WU050403
28.00	40.00	6.00	7.00	11.00	18.00	316-028040070	WU050454
28.00	38.00	5.00	7.00	11.00	18.00	316-028038070	WU050500
30.00	40.00	5.00	5.00	11.00	16.00	316-030040050	WU050551
30.00	40.00	5.00	7.00	11.00	18.00	316-030040070	WU050608
32.00	45.00	6.50	7.00	110.00	117.00	316-032045070	WU050659
35.00	45.00	5.00	7.00	11.00	18.00	316-035045070	WU050705
36.00	45.00	4.50	7.00	11.00	18.00	316-036045070	WU050756
40.00	50.00	5.00	7.00	11.00	18.00	316-040050070	WU050802
42.00	52.00	5.00	7.00	11.00	18.00	316-042052070	WU050853
45.00	55.00	5.00	7.00	11.00	18.00	316-045055070	WU05090X
45.00	60.00	7.50	7.00	11.00	18.00	316-045060070	WU050950
50.00	60.00	5.00	7.00	11.00	18.00	316-050060070	WU051000
55.00	65.00	5.00	7.00	11.00	18.00	316-055065070	WU051051
56.00	66.00	5.00	7.00	11.00	18.00	316-056066070	WU051108
60.00	70.00	5.00	7.00	11.00	18.00	316-060070070	WU051159
63.00	75.00	6.00	7.00	11.00	18.00	316-063075070	WU051256
65.00	75.00	5.00	7.00	11.00	18.00	316-065075070	WU051302
70.00	80.00	5.00	7.00	11.00	18.00	316-070080070	WU051353
75.00	85.00	5.00	7.00	11.00	18.00	316-075085070	WU051450
80.00	90.00	5.00	7.00	11.00	18.00	316-080090070	WU051507
90.00	100.00	5.00	7.00	11.00	18.00	316-090100070	WU051558
100.00	110.00	5.00	7.00	13.00	20.00	316-100110070	WU051655
110.00	120.00	5.00	7.00	13.00	20.00	316-110120070	WU051701
120.00	130.00	5.00	7.00	13.00	20.00	316-120130070	WU051752
125.00	140.00	7.50	9.00	13.00	22.00	316-125140090	WU051809
140.00	155.00	7.50	9.00	13.00	22.00	316-140155090	WU05185X
160.00	175.00	7.50	9.00	13.00	22.00	316-160175090	WU051957

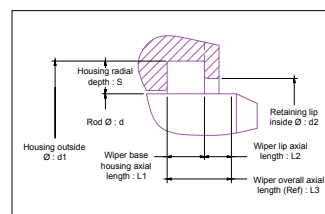
## Lionsele® W3 — wipers

## Lionsele® W3 — JW Chart 317

## Wiper rings

JW established range of metric (mm) housing sizes.

Dimensions conform to the requirements of Table 3; Type C Wiper housings of BS ISO 6195 Fluid components - Cylinder-rod-wiper ring housings in reciprocating applications - Dimensions and tolerances.



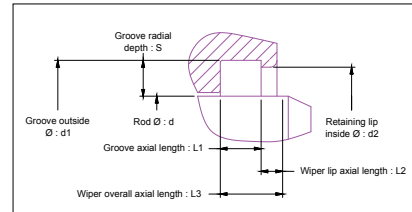
Nominal housing dimensions (mm)							JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Wiper base housing axial length (L1)	Wiper lip axial length (L2)	Wiper overall axial length (ref) (L3)	Retainer Ø (d2)		
12.00	18.00	3.00	4.00	5.30	9.30	14.50	317-012018040	WU040009
14.00	20.00	3.00	4.00	5.30	9.30	16.50	317-014020040	WU04005X
18.00	24.00	3.00	4.00	5.30	9.30	20.50	317-018024040	WU040106
22.00	28.00	3.00	4.00	5.30	9.30	24.50	317-022028040	WU040157
28.00	36.00	4.00	5.00	6.80	11.80	31.00	317-028036050	WU040203
30.00	38.00	4.00	5.00	6.80	11.80	33.00	317-030038050	WU040254
36.00	44.00	4.00	5.00	6.80	11.80	39.00	317-036044050	WU040300
40.00	48.00	4.00	5.00	6.80	11.80	43.00	317-040048050	WU040351
45.00	53.00	4.00	5.00	6.80	11.80	48.00	317-045053050	WU040408
50.00	58.00	4.00	5.00	6.80	11.80	53.00	317-050058050	WU040459
56.00	66.00	5.00	6.00	8.20	14.20	59.00	317-056066060	WU040505
60.00	70.00	5.00	6.00	8.20	14.20	63.00	317-060070060	WU040556
65.00	75.00	5.00	6.00	8.20	14.20	68.00	317-065075060	WU040602
70.00	80.00	5.00	6.00	8.20	14.20	73.00	317-070080060	WU040653
75.00	85.00	5.00	6.00	8.20	14.20	78.00	317-075085060	WU04070X
85.00	95.00	5.00	6.00	8.20	14.20	88.00	317-085095060	WU040750
90.00	100.00	5.00	6.00	8.20	14.20	93.00	317-090100060	WU040858
110.00	125.00	7.50	8.50	12.00	20.50	114.00	317-110125085	WU040955
140.00	155.00	7.50	8.50	12.00	20.50	144.00	317-140155085	WU041056

# Wyclip® — wiper/scrapers

## Wyclip® — JW Chart 62 (inch sizes)

### Wiper/scrapper rings

*JW established range of inch (fraction) housing sizes.*



Nominal housing dimensions (inch)							JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Wiper base housing axial length (L1)	Wiper lip axial length (L2)	Wiper overall axial length (ref) (L3)	Retainer Ø (d2)		
3/8	3/4	3/16	11/64	1/4	27/64	11/16	62-37	WW00008X
1/2	7/8	3/16	11/64	1/4	27/64	13/16	62-50	WW00011X
5/8	1	3/16	11/64	1/4	27/64	15/16	62-62	WW000144
3/4	1 1/4	1/4	15/64	11/32	37/64	1 3/16	62-75	WW000187
7/8	1 3/8	1/4	15/64	11/32	37/64	1 5/16	62-87	WW000217
1	1 1/2	1/4	15/64	11/23	37/64	1 7/16	62-100	WW000241
1 1/8	1 5/8	1/4	15/64	11/32	37/64	1 9/16	62-112	WW000276
1 1/4	1 1/4	1/4	15/64	11/32	37/64	1 11/16	62-125	WW000322
1 3/8	1 7/8	1/4	15/64	11/23	37/64	1 13/16	62-137	WW000330
1 1/2	2	1/4	15/64	11/32	37/64	1 15/16	62-150	WW000373
1 3/4	2 1/4	1/4	15/64	11/32	37/64	2 3/16	62-175	WW000438
2	2 1/2	1/4	15/64	11/23	37/64	2 7/16	62-200	WW000497
2 1/4	2 3/4	1/4	15/64	11/32	37/64	2 11/16	62-225	WW00056X
2 1/2	3	1/4	15/64	11/32	37/64	2 15/16	62-250	WW000624
2 5/8	3 1/8	1/4	15/64	11/23	37/64	3 1/16	62-262	WW000659
2 3/4	3 1/4	1/4	15/64	11/32	37/64	3 3/16	62-275	WW000683
3	3 1/2	1/4	15/64	11/32	37/64	3 7/16	62-300	WW000756
3 1/4	3 3/4	1/4	15/64	11/23	37/64	3 11/16	62-325	WW000829
3 1/2	4	1/4	15/64	11/32	37/64	3 15/16	62-350	WW000888
3 3/4	4 1/4	1/4	15/64	11/32	37/64	4 3/16	62-375	WW000950
4	4 1/2	1/4	15/64	11/23	37/64	4 7/16	62-400	WW001019
4 1/2	5	1/4	15/64	11/32	37/64	4 15/16	62-450	WW001140
4 3/4	5 1/4	1/4	15/64	11/32	37/64	5 3/16	62-475	WW001205
5	5 1/2	1/4	15/64	11/23	37/64	5 7/16	62-500	WW001272
5 1/2	6 1/8	5/16	15/64	11/32	37/64	6 1/16	62-550	WW001396
6	6 5/8	5/16	15/64	11/32	37/64	6 9/16	62-600	WW001523
6 1/2	7 1/8	5/16	15/64	11/23	37/64	7 1/16	62-650	WW001655
7	7 5/8	5/16	15/64	11/32	37/64	7 9/16	62-700	WW001779

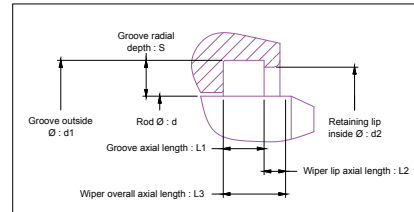


# Wyclip® — wiper/scrapers

## Wyclip® — JW Chart 67

### Wiper/scrapper rings

JW established range of metric (mm) housing sizes.



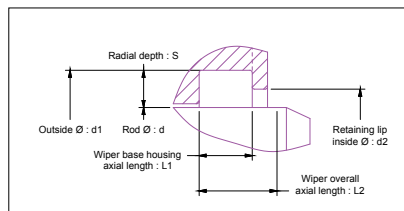
Nominal housing dimensions (mm)							JW Part Number	JW Order Number (Endless)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Wiper base housing axial length (L1)	Wiper lip axial length (L2)	Wiper overall axial length (ref) (L3)	Retainer Ø (d2)		
12.00	22.00	5.00	4.50	6.50	11.00	20.50	67-12	WW003127
14.00	24.00	5.00	4.50	6.50	11.00	22.50	67-14	WW003143
15.00	25.00	5.00	4.50	6.50	11.00	23.50	67-15	WW003151
16.00	26.00	5.00	4.50	6.50	11.00	24.50	67-16	WW00316X
18.00	28.00	5.00	4.50	6.50	11.00	26.50	67-18	WW003186
20.00	33.00	6.50	6.00	8.50	14.50	31.50	67-20	WW003208
22.00	35.00	6.50	6.00	8.50	14.50	33.50	67-22	WW003224
25.00	38.00	6.50	6.00	8.50	14.50	36.50	67-25	WW003259
28.00	41.00	6.50	6.00	8.50	14.50	39.50	67-28	WW003283
30.00	43.00	6.50	6.00	8.50	14.50	41.50	67-30	WW003305
32.00	45.00	6.50	6.00	8.50	14.50	43.50	67-32	WW003321
36.00	49.00	6.50	6.00	8.50	14.50	47.50	67-36	WW003364
40.00	53.00	6.50	6.00	8.50	14.50	51.50	67-40	WW003402
45.00	58.00	6.50	6.00	8.50	14.50	56.50	67-45	WW003453
50.00	63.00	6.50	6.00	8.50	14.50	61.50	67-50	WW00350X
55.00	68.00	6.50	6.00	8.50	14.50	66.50	67-55	WW003550
56.00	69.00	6.50	6.00	8.50	14.50	67.50	67-56	WW003569
60.00	73.00	6.50	6.00	8.50	14.50	71.50	67-60	WW003607
63.00	76.00	6.50	6.00	8.50	14.50	74.50	67-63	WW003631
65.00	78.00	6.50	6.00	8.50	14.50	76.50	67-65	WW003658
70.00	83.00	6.50	6.00	8.50	14.50	81.50	67-70	WW003704
80.00	93.00	6.50	6.00	8.50	14.50	91.50	67-80	WW005804
85.00	98.00	6.50	6.00	8.50	14.50	96.50	67-85	WW005855
90.00	103.00	6.50	6.00	8.50	14.50	101.50	67-90	WW005901
95.00	108.00	6.50	6.00	8.50	14.50	106.50	67-95	WW005952
100.00	113.00	6.50	6.00	8.50	14.50	111.50	67-100	WW006002
105.00	118.00	6.50	6.00	8.50	14.50	116.50	67-105	WW006053
110.00	123.00	6.50	6.00	8.50	14.50	121.50	67-110	WW00610X
115.00	128.00	6.50	6.00	8.50	14.50	126.50	67-115	WW006150
120.00	133.00	6.50	6.00	8.50	14.50	131.50	67-120	WW006207
125.00	138.00	6.50	6.00	8.50	14.50	136.50	67-125	WW006258

# Wiper Type L — wipers

## Wiper Type L — JW Chart 524

### Wiper rings

*JW established range of metric (mm) housing sizes.*



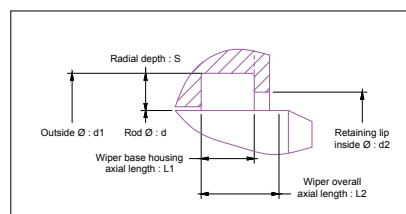
Nominal housing dimensions (mm)						JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Wiper base housing axial length (L1)	Wiper overall axial length (ref) (L2)	Retainer Ø (d2)			
25.00	38.00	6.50	4.00	8.00	32.00	524-0025	WU002506	WU042508
26.00	39.00	6.50	4.00	8.00	33.00	524-0026	WU002603	WU042605
27.00	40.00	6.50	4.00	8.00	34.00	524-0027	WU002700	WU042702
28.00	41.00	6.50	4.00	8.00	35.00	524-0028	WU002808	WU04280X
29.00	42.00	6.50	4.00	8.00	36.00	524-0029	WU002905	WU042907
30.00	43.00	6.50	4.00	8.00	37.00	524-0030	WU043008	WU043008
31.00	44.00	6.50	4.00	8.00	38.00	524-0031	WU003103	WU043105
32.00	45.00	6.50	4.00	8.00	39.00	524-0032	WU003200	WU043202
33.00	46.00	6.50	4.00	8.00	40.00	524-0033	WU003308	WU04330X
34.00	47.00	6.50	4.00	8.00	41.00	524-0034	WU003405	WU043407
35.00	48.00	6.50	4.00	8.00	42.00	524-0035	WU003502	WU043504
36.00	49.00	6.50	4.00	8.00	43.00	524-0036	WU00360X	WU043601
37.00	50.00	6.50	4.00	8.00	44.00	524-0037	WU003707	WU043709
38.00	51.00	6.50	4.00	8.00	45.00	524-0038	WU003804	WU043806
39.00	52.00	6.50	4.00	8.00	46.00	524-0039	WU003901	WU043903
40.00	53.00	6.50	4.00	8.00	47.00	524-0040	WU004002	WU044004
41.00	54.00	6.50	4.00	8.00	48.00	524-0041	WU00410X	WU044101
42.00	55.00	6.50	4.00	8.00	49.00	524-0042	WU004207	WU044209
43.00	56.00	6.50	4.00	8.00	50.00	524-0043	WU004304	WU044306
44.00	57.00	6.50	4.00	8.00	51.00	524-0044	WU004401	WU044403
45.00	58.00	6.50	4.00	8.00	52.00	524-0045	WU004509	WU044500
46.00	59.00	6.50	4.00	8.00	53.00	524-0046	WU004606	WU044608
47.00	60.00	6.50	4.00	8.00	54.00	524-0047	WU004703	WU044705
48.00	61.00	6.50	4.00	8.00	55.00	524-0048	WU004800	WU044802
49.00	62.00	6.50	4.00	8.00	56.00	524-0049	WU004908	WU04490X
50.00	63.00	6.50	4.00	8.00	57.00	524-0050	WU005009	WU045000
52.00	65.00	6.50	4.00	8.00	59.00	524-0052	WU005203	WU045205
55.00	68.00	6.50	4.00	8.00	62.00	524-0055	WU005505	WU045507
56.00	69.00	6.50	4.00	8.00	63.00	524-0056	WU005602	WU045604
57.00	70.00	6.50	4.00	8.00	64.00	524-0057	WU00570X	WU045701
58.00	71.00	6.50	4.00	8.00	65.00	524-0058	WU005807	WU045809
60.00	73.00	6.50	4.00	8.00	67.00	524-0060	WU006005	WU046007
62.00	75.00	6.50	4.00	8.00	69.00	524-0062	WU00620X	WU046201
63.00	76.00	6.50	4.00	8.00	70.00	524-0063	WU006307	WU046309
65.00	78.00	6.50	4.00	8.00	72.00	524-0065	WU006501	WU046503
67.00	80.00	6.50	4.00	8.00	74.00	524-0067	WU006706	WU046708
70.00	83.00	6.50	4.00	8.00	77.00	524-0070	WU007001	WU047003
72.00	85.00	6.50	4.00	8.00	79.00	524-0072	WU007206	WU047208
75.00	88.00	6.50	4.00	8.00	82.00	524-0075	WU007508	WU04750X
76.00	89.00	6.50	4.00	8.00	83.00	524-0076	WU007605	WU047607
77.00	90.00	6.50	4.00	8.00	84.00	524-0077	WU007702	WU047704
80.00	93.00	6.50	4.00	8.00	87.00	524-0080	WU008008	WU04800X
82.00	95.00	6.50	4.00	8.00	89.00	524-0082	WU008202	WU048204
85.00	98.00	6.50	4.00	8.00	92.00	524-0085	WU008504	WU048506
87.00	100.00	6.50	4.00	8.00	94.00	524-0087	WU008709	WU048700
90.00	103.00	6.50	4.00	8.00	97.00	524-0090	WU009004	WU049006
95.00	108.00	6.50	4.00	8.00	102.00	524-0095	WU009500	WU049502
98.00	109.00	5.50	4.00	8.00	103.00	524-0098	WU009802	WU049804
100.00	113.00	6.50	4.00	8.00	107.00	524-0100	WU010002	WU050004

# Wiper Type L — wipers

## Wiper Type L — JW Chart 525

### Wiper rings

JW established range of metric (mm) housing sizes.



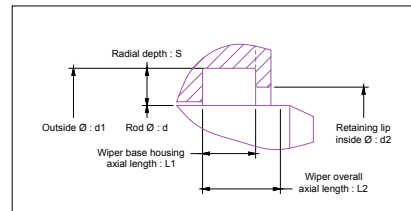
Nominal housing dimensions (mm)						JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod $\varnothing$ (d)	Outside $\varnothing$ (d1)	Radial depth (S)	Wiper base housing axial length (L1)	Wiper overall axial length (ref) (L2)	Retainer $\varnothing$ (d2)			
105.00	120.00	7.50	7.00	12.00	113.00	525-0105	WU071052	WU061057
110.00	125.00	7.50	7.00	12.00	118.00	525-0110	WU071109	WU061103
115.00	130.00	7.50	7.00	12.00	123.00	525-0115	WU07115X	WU061154
120.00	135.00	7.50	7.00	12.00	128.00	525-0120	WU071206	WU061200
125.00	140.00	7.50	7.00	12.00	133.00	525-0125	WU071257	WU061251
128.00	143.00	7.50	7.00	12.00	136.00	525-0128	WU071281	WU061286
130.00	145.00	7.50	7.00	12.00	138.00	525-0130	WU071303	WU061308
135.00	150.00	7.50	7.00	12.00	143.00	525-0135	WU071354	WU061359
140.00	155.00	7.50	7.00	12.00	148.00	525-0140	WU071400	WU061405
145.00	160.00	7.50	7.00	12.00	153.00	525-0145	WU071451	WU061456
149.00	164.00	7.50	7.00	12.00	157.00	525-0149	WU071494	WU061499
150.00	165.00	7.50	7.00	12.00	158.00	525-0150	WU071508	WU061502
151.00	166.00	7.50	7.00	12.00	159.00	525-0151	WU071516	WU061510
153.00	168.00	7.50	7.00	12.00	161.00	525-0153	WU071532	WU061537
155.00	170.00	7.50	7.00	12.00	163.00	525-0155	WU071559	WU061553
160.00	175.00	7.50	7.00	12.00	168.00	525-0160	WU071605	WU06160X
165.00	180.00	7.50	7.00	12.00	173.00	525-0165	WU071656	WU061650
170.00	185.00	7.50	7.00	12.00	178.00	525-0170	WU071702	WU061707
175.00	190.00	7.50	7.00	12.00	183.00	525-0175	WU071753	WU061758
180.00	195.00	7.50	7.00	12.00	188.00	525-0180	WU07180X	WU061804
185.00	200.00	7.50	7.00	12.00	193.00	525-0185	WU071850	WU061855
190.00	205.00	7.50	7.00	12.00	198.00	525-0190	WU071907	WU061901
195.00	210.00	7.50	7.00	12.00	203.00	525-0195	WU071958	WU061952
200.00	215.00	7.50	7.00	12.00	208.00	525-0200	WU072008	WU062002
205.00	220.00	7.50	7.00	12.00	213.00	525-0205	WU072059	WU062509
210.00	225.00	7.50	7.00	12.00	218.00	525-0210	WU072105	WU06210X
215.00	230.00	7.50	7.00	12.00	223.00	525-0215	WU072156	WU062150
220.00	235.00	7.50	7.00	12.00	228.00	525-0220	WU072202	WU062207
225.00	240.00	7.50	7.00	12.00	233.00	525-0225	WU072253	WU062258
230.00	245.00	7.50	7.00	12.00	238.00	525-0230	WU07230X	WU062304
235.00	250.00	7.50	7.00	12.00	243.00	525-0235	WU072350	WU062355
240.00	255.00	7.50	7.00	12.00	248.00	525-0240	WU072407	WU062401
245.00	260.00	7.50	7.00	12.00	253.00	525-0245	WU072458	WU062452
250.00	265.00	7.50	7.00	12.00	258.00	525-0250	WU072504	WU062606

# Wiper Type L — wipers

## Wiper Type L — JW Chart 526

### Wiper rings

*JW established range of metric (mm) housing sizes.*



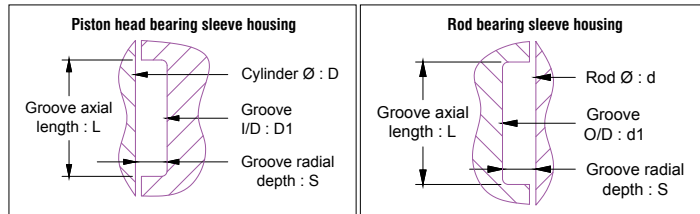
Nominal housing dimensions (mm)						JW Part Number	JW Order Number (Endless)	JW Order Number (Split)
Rod Ø (d)	Outside Ø (d1)	Radial depth (S)	Wiper base housing axial length (L1)	Wiper overall axial length (ref) (L2)	Retainer Ø (d2)			
210.00	228.00	9.00	7.50	15.00	219.00	526-0210	WU082100	WU092106
250.00	268.00	9.00	7.50	15.00	259.00	526-0250	WU08250X	WU092505
255.00	273.00	9.00	7.50	15.00	264.00	526-0255	WU082550	WU092556
260.00	278.00	9.00	7.50	15.00	269.00	526-0260	WU082607	WU092602
265.00	283.00	9.00	7.50	15.00	274.00	526-0265	WU082658	WU092653
270.00	288.00	9.00	7.50	15.00	279.00	526-0270	WU082704	WU09270X
272.00	290.00	9.00	7.50	15.00	281.00	526-0272	WU082720	WU092726
273.00	291.00	9.00	7.50	15.00	282.00	526-0273	WU082739	WU092734
280.00	298.00	9.00	7.50	15.00	289.00	526-0280	WU082801	WU092807
285.00	303.00	9.00	7.50	15.00	294.00	526-0285	WU082852	WU092858
290.00	308.00	9.00	7.50	15.00	299.00	526-0290	WU082909	WU092904
300.00	318.00	9.00	7.50	15.00	309.00	526-0300	WU08300X	WU093005
305.00	323.00	9.00	7.50	15.00	314.00	526-0305	WU083050	WU093056
310.00	328.00	9.00	7.50	15.00	319.00	526-0310	WU083107	WU093102
315.00	333.00	9.00	7.50	15.00	324.00	526-0315	WU083158	WU093153
320.00	338.00	9.00	7.50	15.00	329.00	526-0320	WU083204	WU09320X
325.00	343.00	9.00	7.50	15.00	334.00	526-0325	WU083255	WU093250
330.00	348.00	9.00	7.50	15.00	339.00	526-0330	WU083301	WU093307
340.00	358.00	9.00	7.50	15.00	349.00	526-0340	WU083409	WU093404
350.00	368.00	9.00	7.50	15.00	359.00	526-0350	WU083506	WU093501
360.00	378.00	9.00	7.50	15.00	369.00	526-0360	WU083603	WU093609
370.00	388.00	9.00	7.50	15.00	379.00	526-0370	WU083700	WU093706
380.00	398.00	9.00	7.50	15.00	389.00	526-0380	WU083808	WU093803
390.00	408.00	9.00	7.50	15.00	399.00	526-0390	WU083905	WU093900
400.00	418.00	9.00	7.50	15.00	409.00	526-0400	WU084006	WU094001

# Lionsele® B1 and B2 — bearing strips

## Lionsele® B1 and B2

### Piston/Rod bearing applications

JW established metric (mm) size range.



Nominal housing dimensions (mm)				Sizes suitable for
Minimum Rod Ø (d) Piston groove I/D (D1)	Maximum Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)	
10.00	150.00	1.50	3.20	Lionsele® B1
15.00	150.00	1.50	6.30	Lionsele® B1
15.00	320.00	2.00	6.30	Lionsele® B1
20.00	605.00	2.50	4.20	Lionsele® B1
25.00	150.00	1.50	8.10	Lionsele® B1
25.00	320.00	2.00	8.10	Lionsele® B1
25.00	605.00	2.50	5.60	Lionsele® B1
30.00	150.00	1.50	9.70	Lionsele® B1
30.00	320.00	2.00	5.60	Lionsele® B2
30.00	320.00	2.00	6.50	Lionsele® B2
30.00	320.00	2.00	8.00	Lionsele® B2
30.00	320.00	2.00	9.70	Lionsele® B1 & B2
30.00	320.00	2.00	10.00	Lionsele® B2
30.00	605.00	2.50	6.30	Lionsele® B1
35.00	150.00	1.50	15.00	Lionsele® B1
35.00	320.00	2.00	12.00	Lionsele® B2
35.00	320.00	2.00	12.70	Lionsele® B2
35.00	605.00	2.50	8.10	Lionsele® B1
40.00	320.00	2.00	14.80	Lionsele® B2
40.00	320.00	2.00	15.00	Lionsele® B1 & B2
40.00	605.00	2.50	5.60	Lionsele® B2
40.00	605.00	2.50	6.50	Lionsele® B2
40.00	605.00	2.50	8.00	Lionsele® B2
40.00	605.00	2.50	9.70	Lionsele® B1 & B2
40.00	605.00	2.50	10.00	Lionsele® B2
40.00	605.00	3.20	5.60	Lionsele® B1
40.00	605.00	4.00	6.30	Lionsele® B1
45.00	150.00	1.50	20.00	Lionsele® B1
45.00	605.00	2.50	12.00	Lionsele® B2
45.00	605.00	3.00	5.60	Lionsele® B2
45.00	605.00	3.00	6.50	Lionsele® B2
45.00	605.00	3.00	8.00	Lionsele® B2
45.00	605.00	3.00	9.70	Lionsele® B1 & B2
45.00	605.00	3.00	10.00	Lionsele® B1 & B2
45.00	605.00	3.00	12.00	Lionsele® B2
45.00	605.00	3.00	12.70	Lionsele® B2
45.00	605.00	4.00	8.10	Lionsele® B1
50.00	605.00	2.50	15.00	Lionsele® B1
50.00	605.00	4.00	9.70	Lionsele® B1

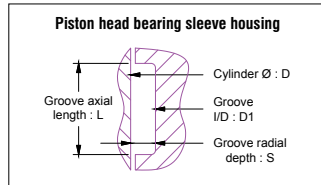
Nominal housing dimensions (mm)				Sizes suitable for
Minimum Rod Ø (d) Piston groove I/D (D1)	Maximum Cylinder Ø (D) Rod groove O/D (d1)	Radial depth (S)	Axial length (L)	
60.00	320.00	2.00	20.00	Lionsele® B1
60.00	605.00	3.00	14.80	Lionsele® B2
60.00	605.00	3.00	15.00	Lionsele® B1 & B2
60.00	605.00	3.20	12.70	Lionsele® B1
65.00	605.00	3.50	5.60	Lionsele® B2
65.00	605.00	3.50	6.50	Lionsele® B2
65.00	605.00	3.50	8.00	Lionsele® B2
65.00	605.00	3.50	9.70	Lionsele® B2
65.00	605.00	3.50	10.00	Lionsele® B2
65.00	605.00	3.50	12.00	Lionsele® B2
65.00	605.00	3.50	12.70	Lionsele® B2
65.00	605.00	3.50	14.80	Lionsele® B2
65.00	605.00	3.50	15.00	Lionsele® B2
70.00	605.00	4.00	15.00	Lionsele® B1
75.00	605.00	2.50	20.00	Lionsele® B1
80.00	605.00	2.50	12.70	Lionsele® B2
80.00	605.00	2.50	14.80	Lionsele® B2
80.00	605.00	2.50	15.00	Lionsele® B2
90.00	150.00	1.50	25.00	Lionsele® B1
100.00	605.00	3.00	20.00	Lionsele® B1
100.00	605.00	3.20	19.00	Lionsele® B1
100.00	605.00	4.00	20.00	Lionsele® B1
110.00	150.00	1.50	40.00	Lionsele® B1
110.00	320.00	2.00	25.00	Lionsele® B1 & B2
120.00	605.00	2.50	25.00	Lionsele® B1 & B2
120.00	605.00	2.50	25.40	Lionsele® B2
130.00	320.00	2.00	25.40	Lionsele® B2
130.00	320.00	2.00	30.00	Lionsele® B1
140.00	605.00	3.00	25.00	Lionsele® B1 & B2
140.00	605.00	3.00	25.40	Lionsele® B2
140.00	605.00	3.20	25.40	Lionsele® B1
150.00	320.00	2.00	40.00	Lionsele® B2
150.00	605.00	2.50	30.00	Lionsele® B1 & B2
150.00	605.00	3.50	25.00	Lionsele® B2
150.00	605.00	3.50	25.40	Lionsele® B2
170.00	320.00	2.00	50.00	Lionsele® B2
170.00	605.00	2.50	40.00	Lionsele® B2
170.00	605.00	3.00	30.00	Lionsele® B2
180.00	605.00	3.50	30.00	Lionsele® B2
200.00	605.00	2.50	50.00	Lionsele® B2
200.00	605.00	3.00	40.00	Lionsele® B2
200.00	605.00	4.00	25.00	Lionsele® B1
210.00	605.00	3.50	40.00	Lionsele® B2
230.00	605.00	3.00	50.00	Lionsele® B2
240.00	605.00	3.50	50.00	Lionsele® B2

# Lionsele® B1 and B2 — bearing strips

## Lionsele® B1 and B2

### Piston bearing applications

*JW metric (mm) size range to suit housings conforming to BS ISO 10766.*

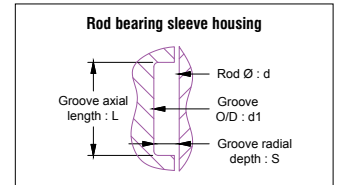


Cylinder/bore Ø (D) (mm)	Nominal housing groove dimensions (mm)		
	Inside Ø (D1)	Radial depth (S)	Axial length (L)
16.00	11.00	2.50	5.60
	12.90	1.55	4.00
20.00	15.00	2.50	5.60
	16.90	1.55	4.00
25.00	20.00	2.50	5.60
	21.90	1.55	4.00
32.00	27.00	2.50	5.60
	28.90	1.55	4.00
40.00	35.00	2.50	5.60
	36.90	1.55	4.00
50.00	45.00	2.50	5.60
	46.90	1.55	4.00
63.00	58.00	2.50	5.60
			9.70
80.00	75.00	2.50	5.60
			9.70
100.00	95.00	2.50	5.60
			9.70
125.00	120.00	2.50	5.60
			9.70
140.00	135.00	2.50	15.00
			9.70
160.00	155.00	2.50	15.00
			9.70
180.00	175.00	2.50	15.00
			9.70
200.00	195.00	2.50	15.00
			9.70
220.00	215.00	2.50	15.00
			9.70
250.00	245.00	2.50	15.00
			9.70
280.00	275.00	4.00	25.00
	272.00		15.00
320.00	315.00	2.50	25.00
	312.00		15.00
360.00	355.00	4.00	25.00
	352.00		15.00
400.00	395.00	2.50	25.00
	392.00		15.00
450.00	445.00	4.00	25.00
	442.00		15.00
500.00	495.00	2.50	25.00
	492.00		15.00

## Lionsele® B1 and B2

### Rod bearing applications

*JW metric (mm) size range to suit housings conforming to BS ISO 10766.*



Rod/shaft Ø (d) (mm)	Nominal housing groove dimensions (mm)						
	Outside Ø (d1)	Radial depth (S)	Axial length (L)				
12.00	15.10	1.55	4.00				
	14.00						
16.00							
18.00							
20.00							
22.00							
25.00	28.10		2.50	5.60			
	30.00						
28.00	31.10		1.55	4.00			
	33.00						
32.00	37.00			2.50	5.60		
						36.00	41.00
40.00	45.00	2.50			9.70		
						45.00	50.00
50.00	55.00				2.50		
						56.00	61.00
63.00	68.00			2.50			
						70.00	75.00
80.00	85.00	2.50					
						90.00	95.00
100.00	105.00		2.50		15.00		
						110.00	115.00
125.00	130.00			2.50	15.00		
						140.00	145.00
160.00	165.00	2.50			15.00		
						180.00	185.00
200.00	205.00		2.50		15.00		
						220.00	225.00
250.00	255.00			2.50	15.00		
						280.00	285.00
320.00	288.00	4.00			25.00		
	360.00					325.00	2.50
388.00			328.00		4.00	25.00	
	385.00		385.00				
388.00			388.00	4.00		25.00	

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CERTIFICATE No. FM 01269  
BS EN 9100:2003  
BS EN ISO 9001:2008