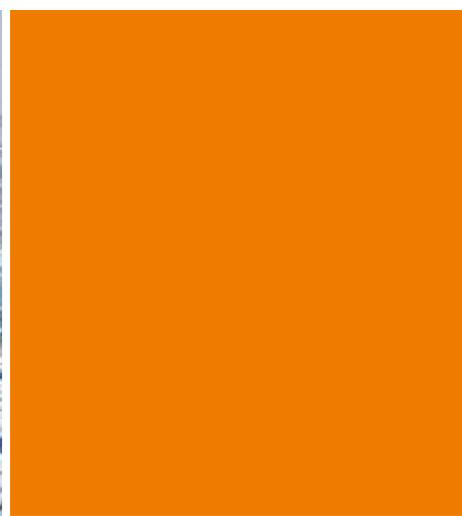


Radial shaft seals | Seals for heavy industrial applications

A.2

Seals for heavy
industrial applications



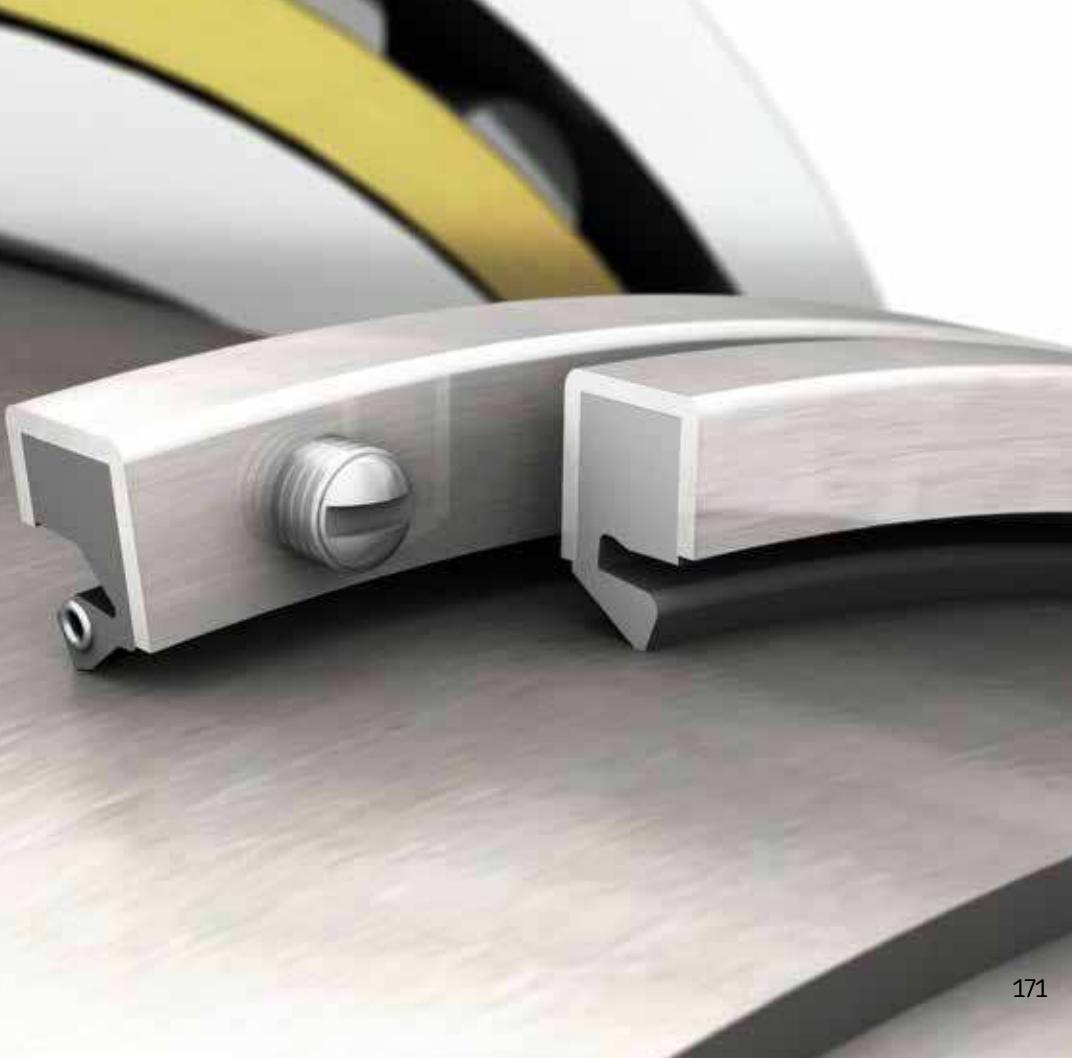
2

DAYS EXPRESS
SERVICE



Seals for heavy industrial applications

- › Flexible in sizes
- › Configured to the application
- › Express service available



Radial shaft seals | Seals for heavy industrial applications

Seals for heavy industrial applications – general

Heavy duty industrial applications, such as construction equipment, metal, mining, paper, oil drilling or wind turbines can be very challenging for radial shaft seals. In operation, the seals are exposed to a wide range of temperatures, speeds and abrasive contaminants. Seals for these applications feature generally sturdy designs and often large size and come with some special features to help improve sealing performance, reliability and handling.

The Heavy Industrial Seals (HIS) range is specially developed by SKF to protect large size bearings under the tough operating conditions experienced in heavy industrial applications.

The heavy industrial seals offering includes metal cased seals (HDS), all-rubber seals (HS), reinforced all-rubber seals (HSS) and polyurethane seals (HRS). SKF's flexible manufacturing processes of the seals enables a wide range of dimensions to be manufactured, with no extra tooling or machine setup time and costs or delays to maintenance timelines. In addition, this SKF service has no minimum order quantity, so is ideal for both large and small industrial application requirements.

Features

SKF Heavy Industrial seals are

- made to order in an unlimited range of customized sizes to suit existing machine dimensions,
- available in a wide range of design and material options to suit application requirements,
- produced quickly to suit any customer lead time – including standard, express or urgent delivery options and
- quick and easy to install, the seals reduce risk of failure and resultant downtime.

Typical applications

- Steel and aluminium rolling
- Pulp and paper feeders and paper machine wet section
- Mining and cement machinery
- Traditional energy – coal grinding mills
- Wind turbines
- Tunnel boring machines
- Heavy duty gearboxes
- Special purpose machinery
- Construction machinery

See also **matrix 2** on pages 176 to 183.

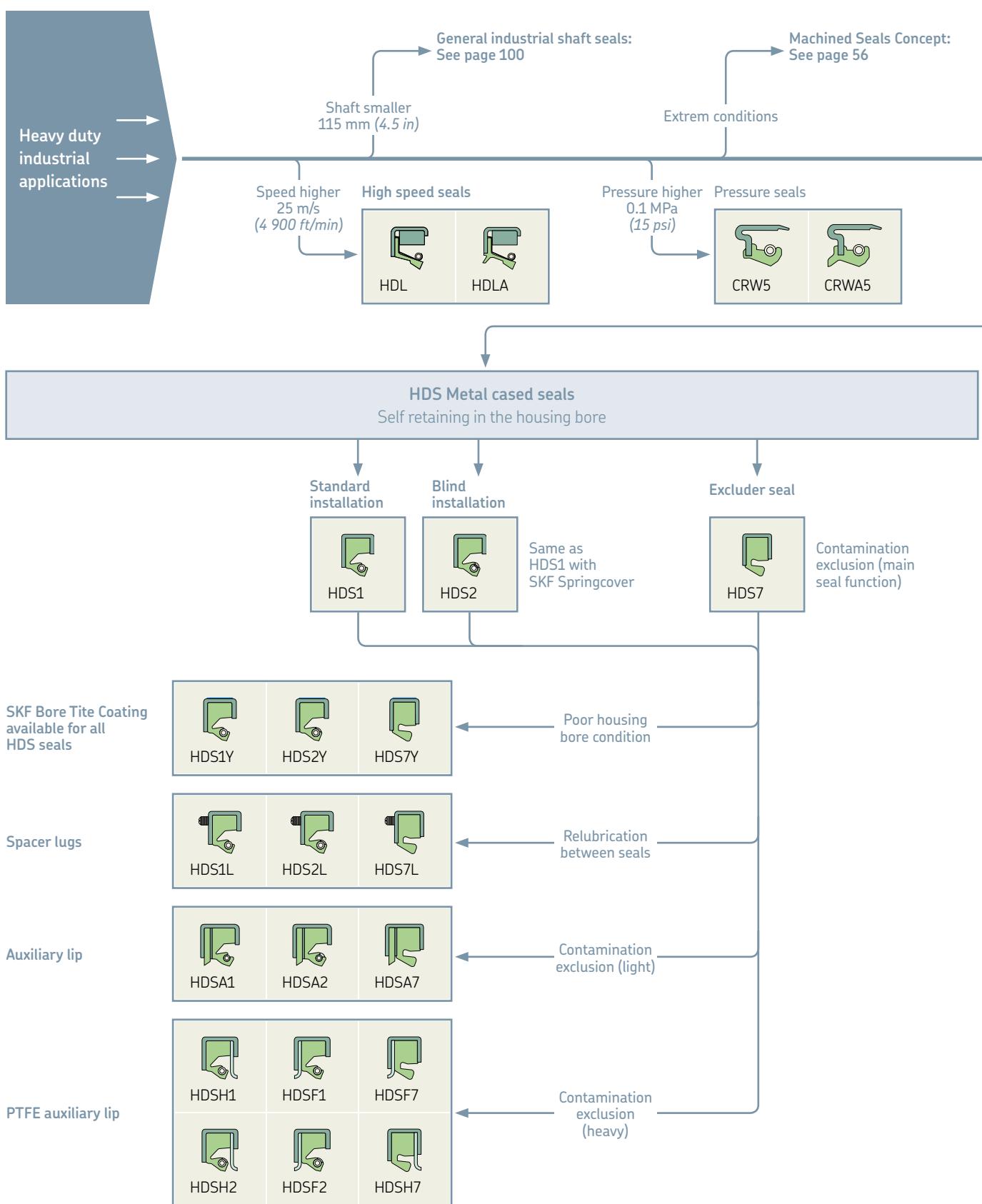


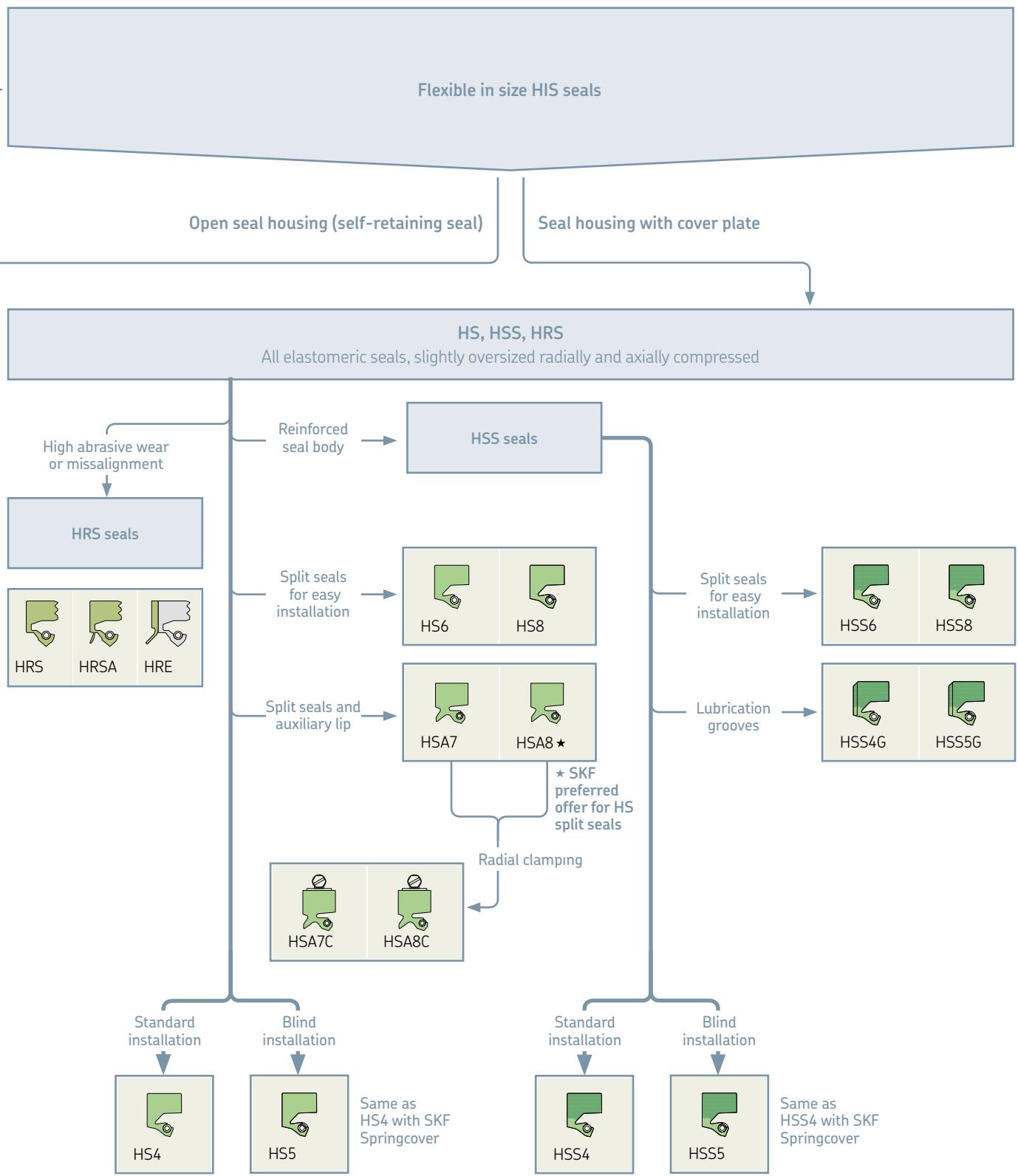
Express service with flexible manufacturing processes

Catalogue shaft seals flexible in size are available in customized main dimensions with minimum order quantity of just one seal and optional express service.

Radial shaft seals | Seals for heavy industrial applications

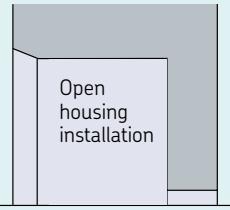
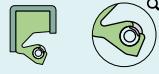
Classification





Radial shaft seals | Seals for heavy industrial applications

Seals for heavy industrial applications, self retaining metal cased seals for open end or through housing bores, HDS range

Installation	Seal design	Seal design description	Material code	Material description	Maximum shaft surface speed		
					m/s ft/min		
	 HDS1	Spring activated sealing lip Metal clad self retaining seals	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 15 2 950 20 3 900 25 4 900		
	 HDS2	Spring activated sealing lip SKF Springcover spring retention Metal clad self retaining seal	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 15 2 950 20 3 900 25 4 900		
	 HDS7	Springless sealing lip Metal clad self retaining seal	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 15 2 950 20 3 900 25 4 900		
	 HDSA1	HDSA2		HDS1 and HDS2 seals with auxiliary dust lip Metal clad self retaining seal	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 15 2 950 20 3 900 25 4 900
	 HDSF1	HDSF2		HDS1 and HDS2 seals with auxiliary excluder lip (TPU or PTFE) to exclude heavy contamination Metal clad self retaining seal	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 15 2 950 20 3 900 25 4 900
	 HDSH2	HDSH7		HDS2 or HDS7 seals with auxiliary excluder lip (TPU or PTFE) to exclude heavy contamination Metal clad self retaining seal	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 15 2 950 20 3 900 25 4 900
	 HDSD2	2 HDS2 seals in back to back arrangement Metal clad self retaining seal	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 15 2 950 20 3 900 25 4 900		
	 HDSE2	2 HDS2 seals in tandem arrangement Metal clad self retaining seal	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 15 2 950 20 3 900 25 4 900		

NOTE: Optional features for HDS seals: SKF Bore Tite outside diameter sealant and spacer lugs as separator between 2 seals in back to back or tandem arrangements.
 Maximum values of application parameters (e.g. speed, temperature, pressure, STBM and DRO) should not be applied continuously nor simultaneously.

Matrix 2

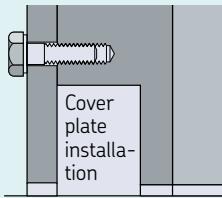
Operating temperature range				Pressure differential		Shaft-to-bore misalignment (STBM) TIR		Dynamic runout (DRO) TIR		Seal function	Typical applications
from	to	from	to			mm	in	mm	in		
°C		°F		MPa	psi						
-40	+100	-40	+210	0,1	15	1,6	0.062	2,4	0.093	Excellent oil or grease retention Exclusion of contamination (in excluder position) Excellent shaft followability	Large size machinery, customized or heavy duty machinery, industrial gearboxes
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	0,1	15	1,6	0.062	2,4	0.093	Designed for blind installation Excellent oil or grease retention Exclusion of contamination (in excluder position)	Large size machinery, metal rolling mills, mining crushers, paper mills etc. with blind seal installation
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	-	-	1,6	0.062	2,4	0.093	Excluder seal Highly effective exclusion of water and solid contaminants and retention of grease	Large size machinery, dust exclusion, metal rolling water and scale exclusion, paper mills water and pulp exclusion
-40	+100	-40	+210	0,1	-	1,6	0.062	2,4	0.093	Exclusion of light to moderate contaminants Excellent oil or grease retention	Large size machinery, industrial gearboxes operated in lightly contaminated environments
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	0,1	-	1,6	0.062	2,4	0.093	Exclusion of heavy contamination Excellent oil and grease retention	Special purpose machinery and gearboxes operated in heavily contaminated environments (e.g. vertical grinding mill in the cement industry, feeder in pulp processing etc.)
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	0,1	-	1,6	0.062	2,4	0.093	Exclusion of heavy contamination	Special purpose machinery and gearboxes operated in heavily contaminated environments (e.g. vertical grinding mill in the cement processing etc.)
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	0,1	-	1,6	0.062	2,4	0.093	Excellent oil and grease retention Exclusion of heavy contamination	Metal rolling, mining equipment, pulp & paper process and other heavy duty machinery
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	0,1	-	1,6	0.062	2,4	0.093	Excellent oil and grease retention Exclusion of heavy contamination	Metal rolling, mining equipment, pulp & paper process and other heavy duty machinery
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								

A.2

Seals for heavy industrial applications

Radial shaft seals | Seals for heavy industrial applications

Seals for heavy industrial applications, all-rubber seals for housings with cover plate, HS range

Installation	Seal design	Seal design description	Material code	Material description	Maximum shaft surface speed
					m/s ft/min
		Spring activated sealing lip All rubber seal, coverplate required!	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 15 2 950 20 3 900 25 4 900
		Spring activated sealing lip SKF Springcover spring retention All rubber seal, coverplate required!	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 15 2 950 20 3 900 25 4 900
		Split execution Spring activated sealing lip SKF Springlock All rubber seal, coverplate required!	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	10 2 000 10 2 000 10 2 000 10 2 000
		Split execution Control wire sealing lip SKF Springcover All rubber seal, coverplate required!	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	7,5 1 500 7,5 1 500 7,5 1 500 7,5 1 500
		★ SKF preferred offer for HS split seals Split execution Spring activated sealing lip SKF Springlock SKF Springcover spring retention All rubber seal, coverplate required!	R D H V	Nitrile rubber (NBR) SKF Duralip (XNBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	10 2 000 10 2 000 10 2 000 10 2 000

NOTE: HS seals are axially and radially oversized to ensure interference fit with cover plate and housing bore.
Maximum values of application parameters (e.g. speed, temperature, pressure, STBM and DRO) should not be applied continuously nor simultaneously.

cont. Matrix 2

Operating temperature range				Pressure differential		Shaft-to-bore misalignment (STBM) TIR		Dynamic runout (DRO) TIR		Seal function	Typical applications
from	to	from	to			mm	in	mm	in		
°C	°F	MPa	psi			mm	in	mm	in		
-40	+100	-40	+210	0,07	11	1,6	0,062	2,4	0,093	Excellent oil and grease retention Exclusion of contamination (in excluder position)	Large size machinery, customized or heavy duty machinery, industrial gearboxes
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	0,07	11	1,6	0,062	2,4	0,093	Designed for blind installation Excellent oil and grease retention Exclusion of contamination (in excluder position)	Large size machinery, wind turbines, metal rolling mills, mining crushers, paper mills etc. with blind seal installation
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	-	-	1,6	0,062	2,4	0,093	Grease (and limited oil) retention Exclusion of contamination (in excluder position)	Large size machinery, End of shaft not accessible, split seal is a requirement Large size, customized or heavy duty machinery
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	-	-	1,6	0,062	2,4	0,093	Grease retention Exclusion of contamination (in excluder position)	Large size machinery, industrial gearboxes, metal rolling mills, mining crushers, paper mills etc. End of shaft not accessible, split seal is a requirement. Only in case of narrow installation space where closing the spring lock is not an option
-40	+100	-40	+210								
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	-	-	1,6	0,062	2,4	0,093	Grease (and limited oil) retention Exclusion of contamination (in excluder position)	Large size machinery, industrial gearboxes,wind turbines, metal rolling mills, mining crushers, paper mills etc. End of shaft not accessible, split seal is a requirement SKF Springcover spring retention facilitates the split seal installation Blind installation into large size, customized or heavy duty machinery
-40	+100	-40	+210								
-40	+150	-40	+300								
-20	+200	-4	+390								

Radial shaft seals | Seals for heavy industrial applications

Seals for heavy industrial applications, all-rubber reinforced seals for housings with cover plate, HSS range

Installation	Seal design	Seal design description	Material code	Material description	Maximum shaft surface speed
					m/s ft/min
		Spring activated sealing lip Reinforced all rubber seal, coverplate required!	R H V	Nitrile rubber (NBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 20 3 900 25 4 900
		Spring activated sealing lip SKF Springcover spring retention Reinforced all rubber seal, coverplate required!	R H V	Nitrile rubber (NBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	15 2 950 20 3 900 25 4 900
		Split execution Spring activated sealing lip SKF Springlock Reinforced all rubber seal, coverplate required!	R H V	Nitrile rubber (NBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	10 2 000
		★ SKF preferred offer for HSS split seals Split execution Spring activated sealing lip SKF Springlock SKF Springcover spring retention Reinforced all rubber seal, coverplate required!	R H V	Nitrile rubber (NBR) SKF Duratemp (HNBR) SKF Duralife (FKM)	10 2 000

NOTE: HSS seals are axially and radially oversized to ensure interference fit with cover plate and housing bore.

Optional feature for HSS seals: Lubrication grooves for re-lubrication between 2 seals.

Maximum values of application parameters (e.g. speed, temperature, pressure, STBM and DRO) should not be applied continuously nor simultaneously.

cont. Matrix 2

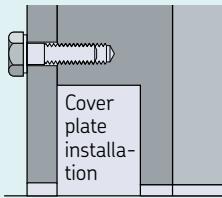
Operating temperature range				Pressure differential		Shaft-to-bore misalignment (STBM) TIR		Dynamic runout (DRO) TIR		Seal function	Typical applications
from	to	from	to			mm	in	mm	in		
°C	°F	MPa	psi								
-40	+100	-40	+210	0,07	11	1,6	0,062	2,4	0,093	Excellent oil and grease retention Exclusion of contamination (in excluder position)	Large size machinery, customized or heavy duty machinery, industrial gearboxes
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	0,07	11	1,6	0,062	2,4	0,093	Designed for blind installation Excellent oil and grease retention Exclusion of contamination (in excluder position)	Large size machinery, metal rolling mills, mining crushers, paper mills etc. with blind seal installation
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	-	-	1,6	0,062	2,4	0,093	Grease (and limited oil) retention Exclusion of contamination (in excluder position)	Large size machinery, industrial gearboxes, metal rolling mills, mining crushers, paper mills etc. End of shaft not accessible, split seal is a requirement Large size, customized or heavy duty machinery
-40	+150	-40	+300								
-20	+200	-4	+390								
-40	+100	-40	+210	-	-	1,6	0,062	2,4	0,093	Grease (and limited oil) retention Exclusion of contamination (in excluder position)	Large size machinery, industrial gearboxes, wind turbines, metal rolling mills, mining crushers, paper mills etc. End of shaft not accessible, split seal is a requirement SKF Springcover spring retention facilitates the split seal installation Blind installation into large size, customized or heavy duty machinery
-40	+150	-40	+300								
-20	+200	-4	+390								

A.2

Seals for heavy industrial applications

Radial shaft seals | Seals for heavy industrial applications

Seals for heavy industrial applications, selected main designs, Polyurethane seal HRS

Installation	Seal design	Seal design description	Material code	Material description	Maximum shaft surface speed
					m/s ft/min
 Cover plate installation		Highh performance polyurethane radial shaft seal with spring activated sealing lip Cover plate required	HP GP	H-ECOPUR (D < 600 mm) G-ECOPUR (D > 600 mm)	2,5 490
		Highh performance polyurethane radial shaft seal with spring activated sealing lip and auxiliary lip Cover plate required	HP GP	H-ECOPUR (D < 600 mm) G-ECOPUR (D > 600 mm)	2,5 490
		Highh performance polyurethane radial excluder seal Cover plate required	HP GP	H-ECOPUR (D < 600 mm) G-ECOPUR (D > 600 mm)	2,5 490
		High performance polyurethane radial shaft seal split execution, SKF Springlock spring activated sealing lip Cover plate required	HP GP	H-ECOPUR (D < 600 mm) G-ECOPUR (D > 600 mm)	2,5 490
		High performance polyurethane radial shaft seal split execution, SKF Springlock spring activated sealing lip Cover plate required	HP GP	H-ECOPUR (D < 600 mm) G-ECOPUR (D > 600 mm)	2,5 490
		High performance polyurethane radial excluder seal Cover plate required	HP GP	H-ECOPUR (D < 600 mm) G-ECOPUR (D > 600 mm)	2,5 490

cont. Matrix 2

Operating temperature range		Pressure differential		Shaft-to-bore misalignment (STBM) TIR		Dynamic runout (DRO) TIR		Seal function	Typical applications		
from	to	from	to	MPa	psi	mm	in	mm	in		
-30	+110	-22	+230	0,05	7	1,5	0.059	3	0.118	Lubricant retention for grease with NLGI > 1	Wind turbine main shaft, heavy industrial applications that require high wear resistance and where there is access to the end of the shaft
-30	+110	-22	+230	0,05	7	1,5	0.059	3	0.118	Lubricant retention for grease with NLGI > 1 with light contamination protection	Wind turbine main shaft, heavy industrial applications that require high wear resistance with light contamination protection where there is access to the end of the shaft
-30	+110	-22	+230	0,05	7	1,5	0.059	3	0.118	Contamination exclusion	Wind turbine main shaft, heavy industrial applications that require high wear resistance and high contamination protection where there is access to the end of the shaft
-30	+110	-22	+230	0,05	7	1,5	0.059	3	0.118	Lubricant retention for grease with NLGI > 1	Wind turbine main shaft, heavy industrial applications that require high wear resistance and where there is no access to the end of the shaft
-30	+110	-22	+230	0,05	7	1,5	0.059	3	0.118	Lubricant retention for grease with NLGI > 1 with light contamination protection	Wind turbine main shaft, heavy industrial applications that require high wear resistance with light contamination protection where there is no access to the end of the shaft
-30	+110	-22	+230	0,05	7	1,5	0.059	3	0.118	Contamination exclusion	Wind turbine main shaft, heavy industrial applications that require high wear resistance with light contamination protection where there is no access to the end of the shaft

A.2

Seals for heavy industrial applications

Radial shaft seals | Seals for heavy industrial applications

How to read a designation

Dimension / Designation examples							Dimension	Seal design	Material
Designation	Shaft (d1)	Decimal Code ¹⁾	Bore (D)	Decimal Code ¹⁾	Bore Depth (B)	Decimal Code ¹⁾	Seal design	Main Lip	Auxiliary lip
1200 - 1316 - 48 HDS2Y R	12.00 in	1200	13.25 in	1316	0.75 in	48	HDS2Y	NBR	-
616 - 700 - 32 HSS5G V	6.25 in	616	7.00 in	700	0.50 in	32	HSS5G	FKM	-
1816 - 2016 - 100 HDSF2L08 DU	18.25 in	1816	20.25 in	2016	1.00 in	100	HDSF2L08 ²⁾	XNBR	H-ECOPUR
675 X 725.2 X 28 HDSA2 DD	675 mm	-	725.2 mm	-	28 mm	-	HDSA2	XNBR	XNBR

Separators (- inch, X metric)

¹⁾ Inch size decimal code in **table 1** (decimals multiplied by 64)
²⁾ "L08" indicates a 0.125 inch lug length from the **table 2**

Matrix 4

Dimensions

dDXXB Metric seals real dimensions in mm
d-D-B Inch size decimal code in **table 1**
 (inch decimals multiplied by 64)

d Shaft diameter
D Seal housing bore diameter
B Housing bore depth / HDS seal width

Table 1

Inch size Decimal code					
Key	Inch	Key	Inch	Key	Inch
00	0	25	0.391	40	0.625
01	0.016	26	0.406	41	0.641
02	0.031	27	0.422	42	0.656
03	0.047	28	0.438	43	0.672
04	0.063	29	0.453	44	0.688
05	0.078	30	0.469	45	0.703
06	0.094	31	0.484	46	0.719
07	0.109	32	0.500	47	0.734
08	0.125	22	0.344	48	0.750
09	0.141	23	0.359	49	0.766
10	0.156	24	0.375	50	0.781
11	0.172	25	0.391	51	0.797
12	0.188	26	0.406	52	0.813
13	0.203	27	0.422	53	0.828
14	0.219	28	0.438	54	0.844
15	0.234	29	0.453	55	0.859
16	0.250	30	0.469	56	0.875
17	0.266	31	0.484	57	0.891
18	0.281	33	0.516	58	0.906
19	0.297	34	0.531	59	0.922
20	0.313	35	0.547	60	0.938
21	0.328	36	0.563	61	0.953
22	0.344	37	0.578	62	0.969
23	0.359	38	0.594	63	0.984
24	0.375	39	0.609	64	1.000

Table 2

Lugs specifications (metric) HDS1L / HDS2L / HDS7L

Metric Code	Length (mm)
L3	3
L4	4
L5	5
L6	6
L7	7
L8	8
L9	9
L10	10
L11	11
L12	12

Lugs specifications (inch) HDS1L / HDS2L / HDS7L

Inch Code	Length (in)
L08	0.125
L10	0.156
L12	0.188
L16	0.250
L20	0.313
L24	0.375
L28	0.438
L32	0.500

Matrix 5

Seal design / Material designation example

Group 1 ▼	Group 2 ▼	Group 3 ▼	Group 4 ▼	Group 5 ▼	Group 6 ▼	Group 7 ▼
HDS design	A	1	Y	L6	R	D
HS / HSS design	-	5	-	G	H	-
HRS design	A	1	-	-	GP	-

Matrix 6

Seal design and material

Group 1 ▶	HDS designs	HS / HSS designs	HRS designs
Group 2 ▶	Auxiliary lip (dust lip) A → Elastomeric auxiliary lip F → Polyurethane or PTFE auxiliary lip on the back of the seal H → Polyurethane or PTFE auxiliary lip on the face of the seal	Polyurethane or PTFE A → Elastomeric auxiliary lip	Auxiliary lip A → Polyurethane auxiliary lip
Group 3 ▶	Main sealing lip features 1 → Seal with spring 2 → Seal with spring and SKF Springcover 7 → Seal without spring	Main sealing lip features 4 → Solid seal with spring 5 → Solid seal with spring and SKF Springcover 6 → Split seal with spring 7 → Split seal with control wire and SKF Springcover 8 → Split seal with spring and SKF Springcover	Main sealing lip features 1 → Solid seal with spring 2 → Split seal with spring
Group 4 ▶	Outside features 9 → Stainless steel case Y → SKF Bore Tite coating		
Group 5 ▶	Relubrication features L → Spacer lugs: spacer lug lenght according to table 2	Relubrication features G → Relubrication grooves on the back of the seal	
Group 6 ▶	Main sealing lip material R → NBR - nitrile rubber H → HNBR - hydrogenated nitrile rubber D → SKF Duralip (XNBR) V → SKF Duralife (FKM)	Main sealing lip material R → NBR - nitrile rubber H → HNBR - hydrogenated nitrile rubber D → SKF Duralip (XNBR) V → SKF Duralife (FKM)	Sealing lip material HP → H-ECOPUR (D < 600 mm) GP → G-ECOPUR (D > 600 mm)
Group 7 ▶	Auxiliary lip material D → XNBR with HDSA T → PTFE U → H-ECOPUR (D < 600 mm) G-ECOPUR (D > 600 mm)		

Radial shaft seals | Seals for heavy industrial applications

Metal-cased seals

General

SKF metal-cased seals are specially designed to withstand the extreme conditions encountered in heavy-duty applications. The seals include the highly engineered and commonly used HDS1, HDS2 and HDS7, as well as designs with additional excluder lips, such as the HDSA, HDSF, HDSH. HDS2 and HDS7 seals can be ordered as a unit in back to back (e.g. HDSD2) or in tandem (e.g. HDSE2) arrangements. These seals perform exceptionally well in the very contaminated environment of metal rolling mills, the pulp and wet section of paper mills, mining and construction machinery and more universal industrial drive applications.

Size flexibility

SKF metal-cased seals are available in a wide range of sizes. Seals in customized dimensions are created as required without any new tooling, resulting in short lead times. In addition, the minimum order quantity is just one seal, enabling a flexible solution for any heavy duty application, no matter how big or small the job.

The HDS seals are available for all shaft diameters within the ranges listed in **table 5** on page 200. The size tables starting on page 203 list a selection of sizes. Contact your SKF sales representative for additional information.

Ease of installation

SKF's heavy duty application self-retaining HDS seals are ideal for use in open housing bore installations. For housings with cover plates and axial clamping of the seal into the housing bore, please refer to the all rubber SKF seals marked HS and HSS on page 90.



HDS1 and HDS2

The most commonly used metal-cased seals are the HDS1 and HDS2 seals, designed for general-purpose applications. They are equipped with a heavy-duty metal case and a stainless steel garter spring.

The HDS1 seal (→ **fig. 1**) has a spring installed in the SKF Springlock groove (→ **fig. 11** on page 191). For blind installations, where spring displacement may go undetected, HDS2 seals (→ **fig. 2**) have an SKF Springcover (→ **fig. 12** on page 191) that retains the spring in the groove. The HDS1 and HDS2 seals are available with adjustable or fixed-width spacer lugs (→ page 190).

The HDS1 and HDS2 seals can be designed with a PTFE or ECOPUR auxiliary lip, positioned and directed in either of the two ways shown in **figs. 6** and **7** on page 188 and with optional SKF Bore Tite outer diameter sealant coating (→ **fig. 13** on page 191).

Nitrile rubber (NBR) is standard for these seal designs, but both of them are also available in SKF Duralip (XNBR), SKF Duratemp (HNBR) and SKF Duralife (FKM).



HDS7

The ingress of water and solid contaminants is a common cause of bearing failures. To solve this, SKF developed its flexible in size heavy duty HDS radial shaft seals family the HDS7 seal with enhanced exclusion capabilities (→ **fig. 3**). It was originally designed for grease lubricated bearings in rolling mill stands, where water and scale are a constant threat to bearing service life. The HDS7 is also recommended for use in large gearboxes, coal pulverizers and cement grinders and all other applications where excluding contamination and protecting the drive train challenges the sealing system. Customers have reported that the HDS7 seal is easier to install and provides longer service life than common seal designs.

The HDS7 seal features an optimized non-spring-loaded lip profile, designed to retain grease and aggressively pump contaminants away from the lip. The lip concept of HDS7 seals also reduces radial loads, which otherwise can lead to elevated under-lip temperatures and increased seal wear. HDS7 seals are installed with the sealing lip facing the air side. The HDS7 can also be used in oil lubricated applications in back-to-back arrangements with a spring-loaded seal design, e.g. an HDS1 or HDS2 (→ **figs. 1** and **2**), in the includer position.

HDS7 seals can also be equipped with a PTFE or ECOPUR auxiliary lip positioned and directed as shown in **fig. 7** on **page 188**.

The HDS7 seal is available with a nitrile sealing lip (NBR) for general use, SKF Duralip (XNBR) for increased wear resistance in abrasive environments and SKF Duratemp (HNBR) that combines improved wear resistance with increased temperature capability. For certain applications, SKF Duralife (FKM) can also be specified. See page 31 for additional information about different sealing lip materials.

SKF Bore Tite outer diameter sealant coating (see **page 191**) and spacer lugs (see **page 190**) are available as options.

Radial shaft seals | Seals for heavy industrial applications

Fig. 4



HDSA seals

HDSA seals are designed with an elastomeric auxiliary lip in addition to the sealing lip (→ figs. 4 to 7). They are generally used where additional protection from light contaminants is needed.

HDSA2 is designed with an SKF Spring-cover for spring retention in blind installations e. g. in metal rolling mill chocks, while HDSA1 is designed without an SKF Spring-cover for industrial drive and gearbox applications (→ fig. 12 on page 191).

HDSA is also available with SKF Bore Tite coating (see page 191).

HDSA seals are available with sealing lips made of nitrile rubber (NBR), SKF Duralip (XNBR), SKF Duratemp (HNBR) or SKF Duralife (FKM). For shaft diameters up to 1 200 mm (47 in), the standard auxiliary lip is made of SKF Duralip.

Fig. 6

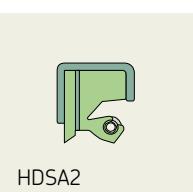


HDSF2

Fig. 7



HDSH2



HDSA2

HDSF and HDSH seals

HDS1, HDS2 and HDS7 seals can be designed with an auxiliary PTFE or ECOPUR lip to further protect the bearing and sealing lip(s) from dust particles in heavily contaminated environments, for example mining and cement industries. The lip is then positioned and directed as shown in **fig. 6**.

The auxiliary lip is providing strong protection against solid contamination (**fig. 7**).

The auxiliary lip is clamped between the metal case and the rubber seal body without significantly increasing the total seal width. It has very good wear resistance, can withstand dry running and contributes to improved sealing performance while only generating a minimal friction torque. The PTFE auxiliary lip has outstanding chemical and temperature resistance. The combination of a PTFE auxiliary lip and a main lip made of the fluoro rubber compound SKF Duralife creates a particularly effective sealing solution for applications with elevated temperatures and required seal resistance against process or cleaning fluids.

Special care must be taken to prevent damaging the PTFE lip during installation. Refer to instructions in paragraph PTFE seals on **pages 96** and **97**.

The letters F and H in the product name indicate a PTFE or ECOPUR auxiliary lip design including the lip's position and direction; see for example the HDSF2 (**→ fig. 6**) and HDSH2 (**→ fig. 7**).

SKF Bore Tite Coating

SKF Bore Tite Coating is optional available as a water-based acrylic sealant for all SKF metal-cased HDS seals. The sealant is used as a coating on the outside diameter of the seal. For more details see **page 191**.

! ECOPUR is a thermoplastic polyurethane (TPU) and has outstanding mechanical properties like abrasion resistance against contaminants. G-ECOPUR and H-ECOPUR are hydrolysis-resistant polyurethanes with similar properties. The size of the seal will dictate whether G-ECOPUR or H-ECOPUR is used.

Fig. 8



Fig. 9



HDSD and HDSE seals

HDSD seals (**→ fig. 8**) are designed with two sealing lips facing opposite directions (back to back arrangement). These seals are typically used in applications where two fluids must be kept separated e.g. the bearing lubricant and a process fluid. When using an HDSD seal, it is very important to provide the means to lubricate the sealing lips. To do this, the cavity between the sealing lips must be filled completely with grease prior to installation.

HDSE seals (**→ fig. 9**) feature two sealing lips facing the same direction (tandem arrangement). They are typically used when a back-up seal would otherwise be needed for retention or exclusion purposes. Like for HDSD seals, for HDSE seals the cavity between the sealing lips must be filled with grease prior to installation so that the seal functions properly.

HDSD and HDSE seals are equipped with an SKF Springcover (HDSD2, HDSE2) (**→ fig. 12 on page 191**). All of them are available in nitrile rubber (NBR), SKF Duralip (XNBR), SKF Duratemp (HNBR) or SKF Duralife (FKM).

HDSD and HDSE seals are available optional with SKF Bore Tite outer diameter sealant coating (**see page 191**).

Radial shaft seals | Seals for heavy industrial applications

Additional design features for HDS seals

Spacer lugs

Spacer lugs are available for all metal-cased HDS designs to separate seals in tandem or back-to-back arrangements to provide space for sealing lip lubrication (→ **fig. 10**).

Traditional fixed-width lugs for metal-cased HDS seals are 9,5 mm (0.375 in) in diameter and are available in widths from 3,2 mm (0.125 in) to 12,7 mm (0.5 in) in increments of 1,6 mm (0.063 in). The fixed-width lug is an available option for all metal-cased seals.

All standard adjustable lugs are 9,5 mm (0.375 in) in diameter and 9,5 mm (0.375 in) in width. They can be adjusted to smaller widths in 1,6 mm (0.063 in) increments by removing the steel washers. The lugs may also be removed entirely. Longer, adjustable lugs, with a width of 12,7 mm (0.5 in), are available on request, however, it can be more difficult to reduce their width.

Certain small seal cross sections may require special small diameter lugs, 5,3 mm (0.210 in), with a width range of 1,6 to 3,2 mm (0.063 to 0.125 in).

The lugs are placed around the heel of the seal in four, six or eight equally spaced locations, depending on the seal outside diameter (→ **table 3**).



Fig. 10

Number of spacer lugs needed			
Spacer lugs	Housing bore diameter	from	incl.
	mm	in	
4		762	30
6	762	1143	30 45
8	1143		45

Lugs specifications (metric) HDS1L / HDS2L / HDS7L		Lugs specifications (inch) HDS1L / HDS2L / HDS7L	
Metric Code	Length (mm)	Inch Code	Length (in)
L3	3	L08	0.125
L4	4	L10	0.156
L5	5	L12	0.188
L6	6	L16	0.250
L7	7	L20	0.313
L8	8	L24	0.375
L9	9	L28	0.438
L10	10	L32	0.500
L11	11		
L12	12		

Additional design features

SKF Springlock

The SKF Springlock is a sealing lip feature that surrounds 270° of the garter spring diameter (→ **fig. 11**). It helps hold the spring in position during installation and is standard on all HS, HSS seals and spring-loaded, metal-cased HDS seals.

SKF Springcover

For blind installations, where spring displacement may go undetected, the SKF Springcover (→ **fig. 12**) can be specified. It also protects the spring from dirt, water and other contaminants. SKF Springcover is flexible and covers the exposed portion of the stainless steel garter spring without adversely affecting the spring's capability.

SKF Bore Tite Coating

The static sealing ability between a metal outside diameter and the housing bore is somewhat limited. This is particularly the case with low-viscosity and wetting fluids. With this in mind, HDS seals can be ordered with the optional SKF Bore Tite Coating (→ **fig. 13**), a water-based acrylic sealant. SKF Bore Tite Coating is green in colour, does not harden and serves to fill small imperfections in the housing bore.

- The coating thickness is 0,03 to 0,07 mm (0.0012 to 0.0028 in)
- The coating compensates for small imperfections in the housing bore surface. It is recommended for bore surface texture greater 2,5 µm (100 µin) Ra
- The temperatures resistance is up to 200 oC (390 °F)

Media compatibility is very good for oils, greases, aqueous acids and alkalis, alcohols, glycols. With aromatics, ketones and esters the coating is not compatible.



Fig. 11



Fig. 12



Fig. 13

Radial shaft seals | Seals for heavy industrial applications

All-rubber seals

General

SKF offers a wide range of all-rubber seals in customized dimensions for housings with cover plates and axial clamping of the seal into the housing bore.

SKF all-rubber seals are specially designed to withstand the extreme conditions encountered in heavy-duty applications. The assortment includes the HS and HSS seals. The HSS seals feature a reinforced seal body for improved stability. Both designs are available as split seals to enable easy installation without shaft dismounting in large machinery. These seals perform exceptionally well in the very demanding environment of wind turbines, metal rolling mills, mining and construction machinery and more universal industrial drive applications.

Size flexibility

SKF all-rubber seals are available in a wide range of sizes. Seals in customized dimensions are created as required without any new tooling resulting in short lead times. In addition, the minimum order quantity is just one seal, enabling a flexible solution for any heavy duty application, no matter how big or small the job.

For all shaft diameters within the ranges listed in **table 6** on **page 201**. Also, see the product tables starting on **page 203** for a selection of sizes. Contact your SKF sales representative for additional information.

Ease of installation

SKF's heavy duty application axial clamped all-rubber seals are ideal for use in housing bore installations with cover plates. For open housings without cover plates please refer to the metal cased seals HDS on **page 90**.



Fig. 14



Fig. 15

HS all-rubber seals

HS seals, available in solid and split executions, are all-rubber seals, designed without any reinforcement. They are manufactured oversized relative to the housing bore diameter and depth to enable proper compression and stability. A cover plate (→ **figs. 26** and **27** on **pages 94** and **95**) is required to compress the seal axially, helping to stabilize the seal in the housing bore.

A stainless steel garter spring located in the SKF Springlock groove (→ **fig. 23** on **page 195**) provides the appropriate radial load against the shaft.

For certain applications, HS seals are also available with an auxiliary lip and / or band clamp (HSA and HSAC designs). Contact SKF for more information.

HS seals are available in nitrile rubber (NBR), SKF Duralip (XNBR), SKF Duratemp (HNBR) or SKF Duralife (FKM).

Solid execution

Standard solid HS seals can accommodate shaft diameters starting at 165 mm (6.5 in) but basically do not have an upper size limit.

HS4 seals (→ **fig. 14**) have a solid, all-rubber design and incorporate a spring-loaded sealing lip. They feature an SKF Springlock groove (→ **fig. 23** on **page 195**). For a proper fit in the housing bore, a cover plate is required (→ **figs. 26** and **27** on **pages 94** and **95**).

HS5 seals (→ **fig. 15**) have the same basic design as HS4 seals with the addition of an SKF Springcover (→ **fig. 24** on **page 195**) to hold the spring in place during installation and protect it from contaminants.

Both designs have a threaded spring connection (→ **fig. 22a** on **page 195**).

Rubber outside diameter seals



Split execution

In applications where shaft removal is impractical, HS all-rubber split seals are an excellent choice. They are simply placed around the shaft and pushed evenly into the housing bore with the split at the 12 o'clock position. A cover plate (**figs. 27 and 28 on pages 95**) must be used to compress the seal axially to stabilize it in the housing bore.

HS split seals perform best with grease or high-viscosity lubricants. However, low-viscosity lubricants are also suitable if the level of lubricant is kept below the shaft centre line, which is particularly important at considerable surface speeds. Split seals are preferably used on horizontal shafts, but can also be used on vertical shafts in grease lubricated applications.

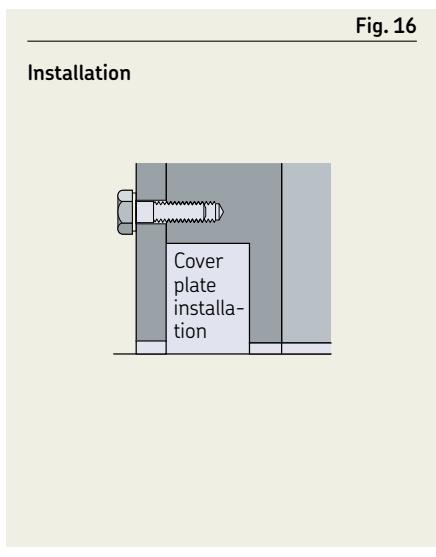
HS6 seals (**fig. 17**) are designed with a spring-loaded sealing lip and an SKF Springlock (**fig. 23 on page 195**). They feature a separate loose spring and a hook-and-eye spring connection for shaft diameters above 455 mm (18 in) unless otherwise specified (**fig. 22b on page 195**). Smaller sizes of HS6 seals come with a threaded spring connection. For a proper fit in the

housing bore, a cover plate is required (**figs. 26 and 27 on page 95**).

HS7 seals (**fig. 18**), designed for **grease lubricated applications only**, have a wire controlled sealing lip and are designed with both an SKF Springlock and SKF Springcover (**figs. 23 and 24 on page 195**). All HS7 seals feature a control-wire spring connection (**fig. 22c on page 195**). The spring is completely enclosed and the connection is made by running the control wire into the centre of the spring coil across the split (butt joint). A built-in spring tension holds the sealing lip on the shaft. For a proper fit, a cover plate is required (**figs. 27 and 28 on pages 95**). Due to the unique design that enables easier installation, a gap and minor leakage may occur at the joint even after the cover plate is installed. It is necessary to place the split at the 12 o'clock position during installation (**fig. 25 on page 94**). HS7 seals do not have the high sealing characteristics of other HS seals, but are the easiest to install.

HS8 seals (**fig. 18**) are designed with a spring-loaded sealing lip, SKF Springlock, SKF Springcover (**figs. 23 and 24 on page 195**) and a hook-and-eye spring connection (**fig. 22b on page 195**) for shaft diameters above 455 mm (18 in). Smaller sizes of HS8 seals come with a threaded spring connection. The spring is entirely enclosed except for a small portion on either side of the split. HS8 seals provide the most effective sealing performance of all split HS seals and are the preferred design for retaining low-viscosity lubricants and for water exclusion. HS8 seals perform best on horizontal shafts, but can also be used on vertical shafts provided they are not flooded with lubricant.

More information on spring connections for split seals can be found on **page 195**.



Radial shaft seals | Seals for heavy industrial applications



Fig. 19

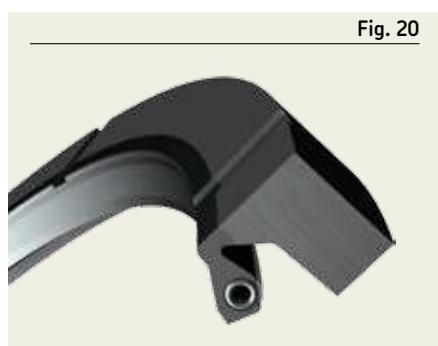


Fig. 20

HSS reinforced all-rubber seals

HSS seals constitute a range of seals with a variety of design following the same design standard and designation system as the HS assortment. Additional features are the reinforced seal body and optional lubrication grooves **fig. 20** at the back of the seal to allow re-greasing between the sealing lips in back-to-back or tandem installations of two HSS seals.

HSS4 and HSS5 are solid, HSS6 and HSS8 are split seal executions. HSS5 and HSS8 are featured with the SKF Springcover (**→ fig. 24 on page 195**). For seals with lubrication grooves the designation includes the suffix G (e.g. HSS5G).

HSS seals are available in nitrile rubber (NBR), SKF Duratemp (HNBR) or SKF Dura-life (FKM) for all shaft diameters within the ranges listed in **matrix 2 on page 180**. Also see the product **tables** starting on **page 203** for a selection of sizes. Additional please refer to the unsurpassed size flexibility of HSS seals, customized dimensions without any new tooling and minimum order quantity of one seal only. Contact your SKF sales representative for additional information.

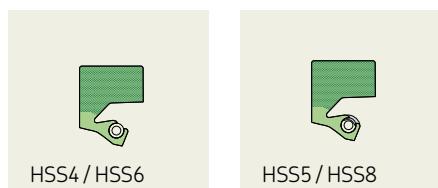


Fig. 21

**HSA7, HSA8, HSA7C, HSA8C**

HSA7 and HSA8 are specifically designed for the harsh conditions in the very slow rotating horizontal grinding mills in cement and mining industries. The seals feature a stronger shaft interference than HS7 and HS8 seals for an improved lubricant retention at very low speeds and an additional auxiliary dust lip to keep the heavy dust contamination in the application out of the bearing.

HSA7C and HSA8C seals are equipped with an outer diameter retention ring to simulate the outer diameter interference in radially open housing bores (**→ fig 21**)

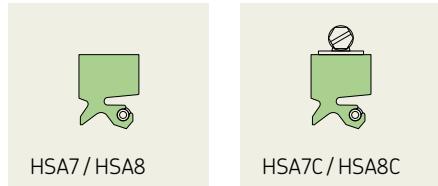
HSA7 seals (**→ fig. 21**) is designed for grease lubricated applications only, have a wire controlled sealing lip and are designed with both an SKF Springlock and SKF Springcover (**→ figs. 23 and 24 on page 195**).

For a proper fit, a cover plate is required (**figs. 26 and 27 on page 95**). Due to the unique design that enables easier installation, a gap and minor leakage may occur at the joint even after the cover plate is installed. It is necessary to place the split at the 12 o'clock position during installation (**→ fig. 24 on page 92**).

HSA7 seals do not have the advanced sealing characteristics of other HS seals, but are the easiest to install.

HSA8 seals are designed with a spring-loaded sealing lip, SKF Springlock, SKF Springcover (**→ figs. 23 and 24 on page 195**) and a hook-and-eye spring connection (**→ fig. 22b on page 195**). The spring is entirely enclosed except for a small portion on either side of the split.

HSA8 seals provide the most effective sealing performance and are the preferred design for retaining low-viscosity lubricants.



Reinforced all-rubber HSS seals , Additional design features for HS and HSS seals

Additional design features for HS and HSS seals

Spring connections for split seals

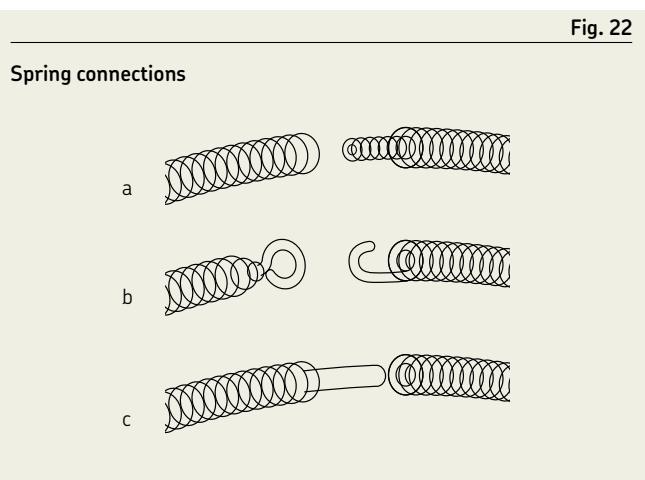
There are different ways to connect the stainless steel garter springs of HS and HSS split seals. A threaded spring connection (**→ fig. 22a**) is used for all solid HS and HSS seals as well as the split HS6 / HSS6 and HS8 / HSS8 seals for shaft diameters ≤ 455 mm (18 in). A hook-and-eye spring connection (**→ fig. 22b**) is used for HS6 / HSS6 and HS8 / HSS8 seals for shaft diameters > 455 mm (18 in). HS7 seals feature the special control-wire connection (**→ fig. 22c**), are only to be used for grease applications when the other spring connections cannot be installed.

SKF Springlock

The SKF Springlock is a sealing lip feature that surrounds 270° of the garter spring diameter (**→ fig. 23**). It helps holding the spring in position during installation and is standard on all HS and HSS seals.

SKF Springcover

For blind installations, where spring displacement may go undetected, the SKF Springcover (**→ fig. 24**) can be specified. It also protects the spring from dirt, water and other contaminants. SKF Springcover is flexible and covers the exposed portion of the stainless steel garter spring without adversely affecting the spring's capability.



Radial shaft seals | Seals for heavy industrial applications

HRS seals

General

HRS seals from SKF were specially designed to cope with the harsh conditions that wind turbine main shafts face. They offer lubricant retention and contamination exclusion to reduce the risks of lubrication or contaminant-related bearings failures and their consequences, such as production downtime and repair costs. These high performance radial shaft seals can deliver significantly extended service life and help operators to reduce maintenance costs and ultimately increase reliability. These seals can also be used for other heavy duty applications.

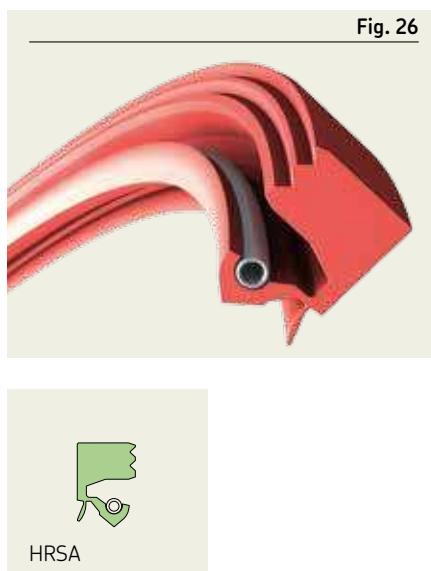
Benefits and features

- Extended service life due to high abrasion resistance
- Reduced bearing failures related to contamination
- Resistance against hydrolysis, UV radiation and ozone due to H-ECOPUR and G-ECOPUR material
- Increased reliability
- Facilitated up-tower retrofits
- Reduced OPEX during machine life
- Easy installation
- Customization of seal size thanks to flexible manufacturing process



Easy up-tower usage

The split seals are single packed and designed to fulfill the needs in the wind aftermarket. Each package contains a seal with the garter spring and an installation guide. To allow for easy handling and transportation for large diameter seals, these seals are folded. For more information on installing a split seal, please see **page 91**.



HRS seals

HRS and HRSA radial shaft seals

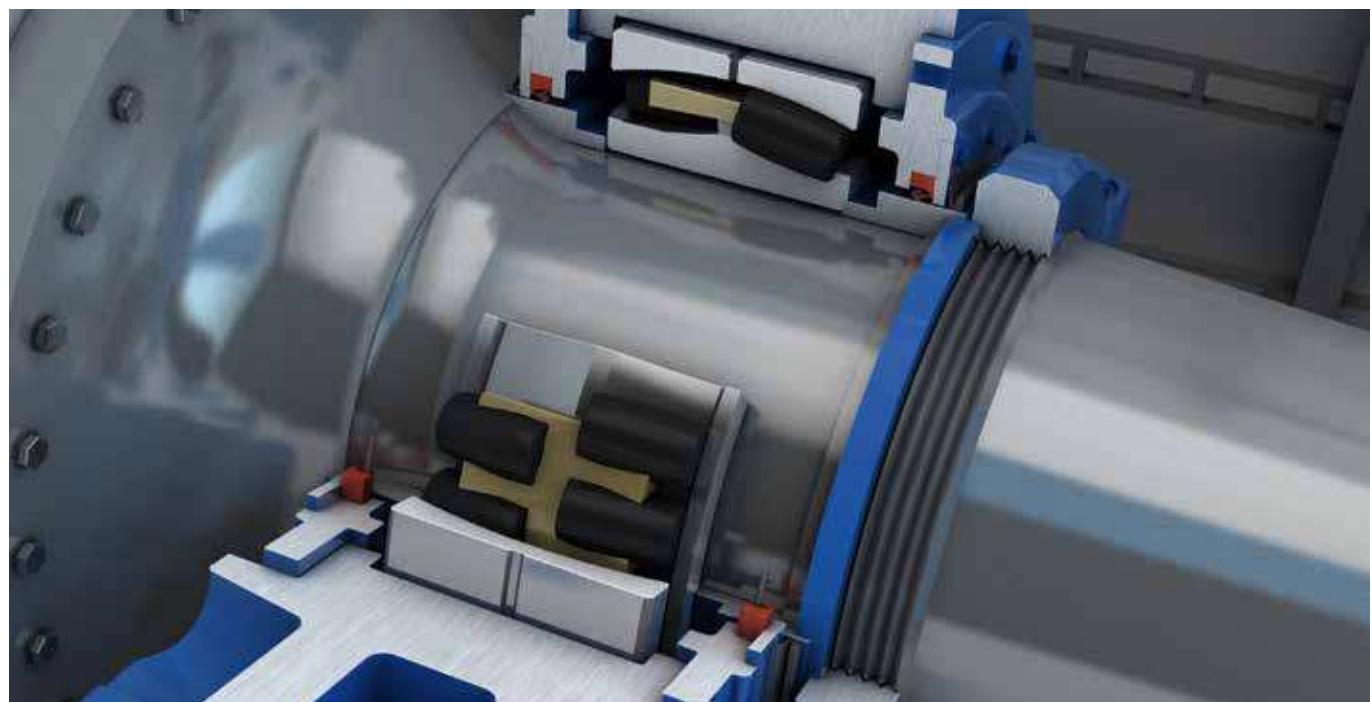
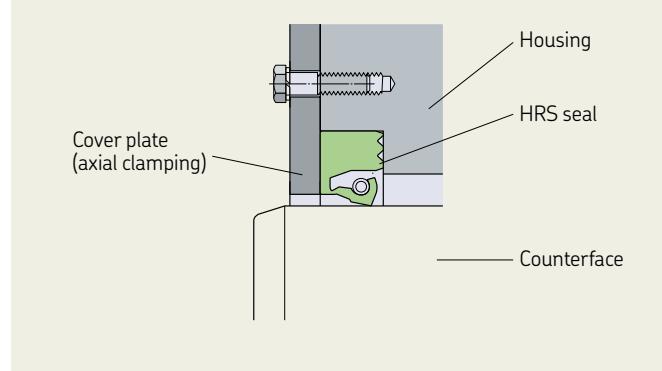
These large diameter radial shaft seals (**→ figs. 25 and 26**), are designed to protect large size bearings in grease lubrication and low pressure differentials. A flexible manufacturing process allows a degree of customization to the seal dimensions to help meet unusual requirements.

HRSA seals (**→ fig. 26**) feature an additional auxiliary lip to protect the seal and the application against contamination from the environment.

HRS and HRSA seals feature a garter spring that stabilizes the sealing lip, increases the lip followability (DRO and STBM) and maintains the sealing function even in alternating operating temperatures. The seals are designed to secure the garter spring inside the spring groove once the seals are installed.

Solid seals feature an endless garter spring, while split seals feature an open connection that is closed during seal installation.

Fig. 27

HRS seals

Radial shaft seals | Seals for heavy industrial applications

HRE radial excluder seal

HRE is a radial contacting excluder seal (→ **fig. 28**), designed to be used in combination with HS, HSS or HRS radial shaft seals as additional protection against contamination. A flexible manufacturing process allows a degree of customization to the seal dimensions to help meet unusual requirements.

HRE seals are additional auxiliary lips for contamination protection to be used in combination with HS, HSS and HRS seals. They are generally used where additional protection from contaminants is needed.

To avoid sealing lip with housing interference please see the dimensional housing requirements on **page 91**.

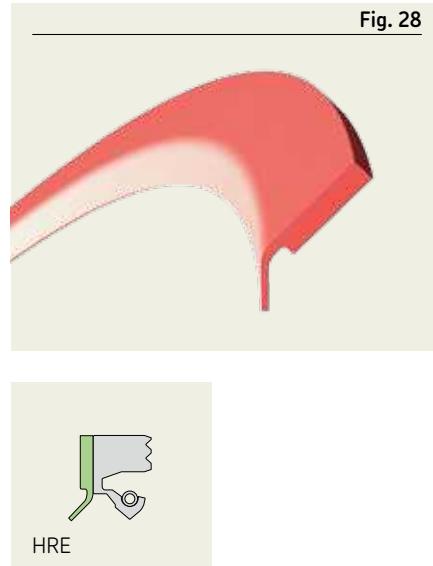


Fig. 28

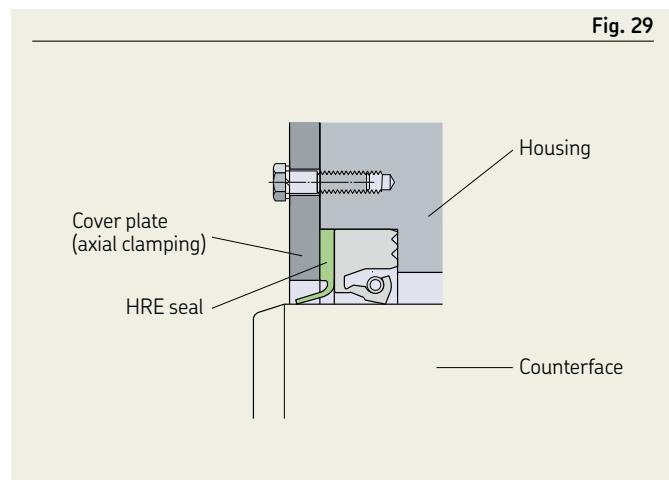


Fig. 29

Material and manufacturing

ECOPUR is a thermoplastic polyurethane (TPU) and has outstanding mechanical properties like abrasion resistance against contaminants.

G-ECOPUR and H-ECOPUR are hydrolysis-resistant polyurethanes with similar properties.

The size of the seal will dictate whether G-ECOPUR or H-ECOPUR is used.

G-ECOPUR

Standard seals are made of G-ECOPUR, which is a casted polyurethane elastomer.

This material has outstanding wear resistance and increased stiffness compared to rubber materials (**→ diagram 1**).

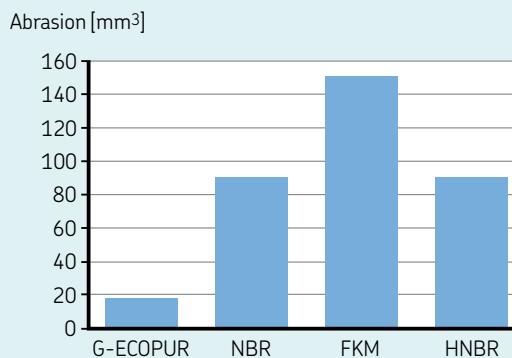
Increased stiffness allows for easier handling and minimizes the risk of installation failures like bending the sealing lip or losing the garter spring.

CNC manufacturing process

Featuring proprietary software and high-precision cutting tools, the SKF SEAL JET manufacturing system uses Computer Numerical Control (CNC) technology to machine polymeric seals quickly (**→ page 56**). The system machines a seal from a semi-finished tube of the selected material.

Diagram 1

Abrasion wear of various sealing materials

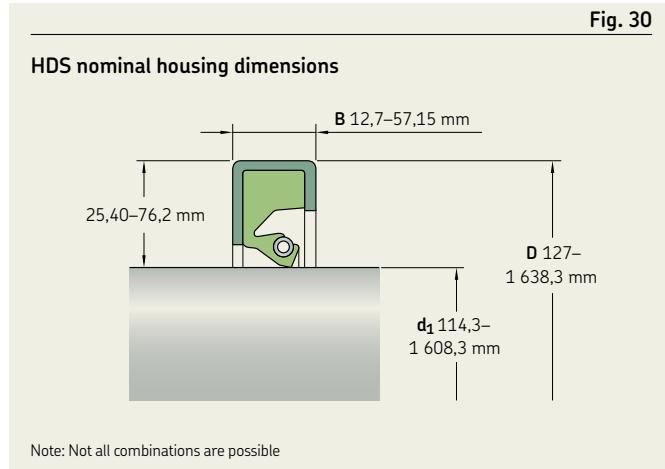


G-ECOPUR is 5 times more abrasion-resistant than the next best performing elastomer material.

Radial shaft seals | Seals for heavy industrial applications

Size options of heavy industrial seals

All SKF metal-cased HDS seals, HS seals, HSS and HRS seals are made upon order in any inch or metric size within the ranges listed in **tables 5, 6 and 7**. New seal sizes are manufactured without additional tooling and can be supplied without extended lead times. The product tables starting on **page 203**, list a selection of sizes. For any size that is not listed in the product tables, contact your SKF distributor or SKF sales representative.

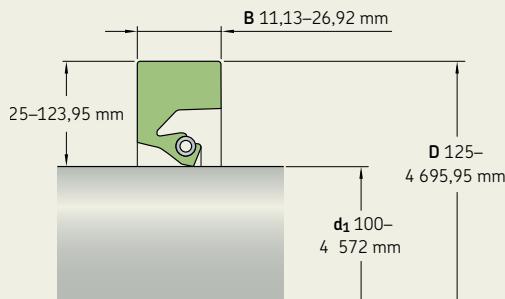
**Table 5**
Standard sizes for metal-cased HDS seal designs

Designs with metal outside diameter	Shaft diameter d_1		Bore diameter D		Nominal seal width B		Difference between bore and shaft diameter	
	from	to	from	to	from	to	from	to
-	mm/in		mm/in		mm/in		mm/in	
HDS7	114,30 4.500	1 608,30 63.319	139,70 5.500	1 638,30 64.500	12,70 0.500	31,75 1.250	25,40 1.000	76,20 3.000
HDSH7	114,30 6.500	1 608,30 63.250	139,70 7.750	1 638,30 64.500	15,00 0.787	31,75 1.250	25,40 1.250	50,80 2.500
HDS1-2, HDSF1-2	114,30 4.500	1 608,30 63.319	127,00 7.750	1 638,30 64.500	12,70 0.625	31,75 1.250	25,40 1.250	76,20 3.000
HDSH1-2	114,30 4.500	1 608,30 63.319	127,00 5.000	1 638,30 64.500	17,07 0.627	31,75 1.250	25,40 1.000	76,20 3.000
HDSA1-2	114,30 4.500	1 189,20 46.819	139,70 5.500	1 219,20 48.000	17,48 0.688	38,10 1.500	25,40 1.000	76,20 3.000
HDSD2, HDSE2	114,30 4.500	1 602,97 63.109	143,51 5.650	1 638,30 64.500	28,58 1.125	57,15 2.250	29,21 1.150	76,20 3.000
HDSEH1-2	165,10 6.500	1 603,50 63.130	202,18 7.960	1 638,30 64.500	39,98 1.574	50,80 2.000	37,08 1.460	76,20 3.000

Not all cross sections and widths are possible with every shaft diameter. Contact SKF for information on dimensions at the extreme limits or for sizes outside the standard range.

Fig. 31

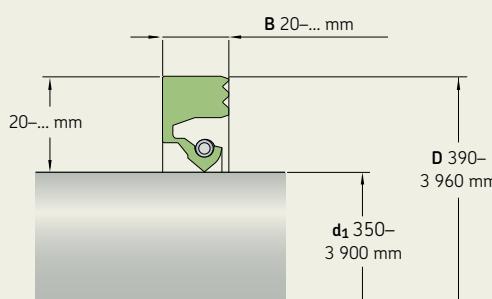
HS and HSS nominal housing dimensions



Note: Not all combinations are possible

Fig. 31

HRS nominal housing dimensions



Note: Not all combinations are possible

Fig. 32

Table 6

Standard size for all rubber and polyurethane seals

Designs with metal outside diameter	Shaft diameter d_1		Bore diameter D		Nominal seal width B		Difference between bore and shaft diameter	
	from	to	from	to	from	to	from	to
-	mm/in		mm/in		mm/in		mm/in	
HS	100 3,937	4 572 180	125 4,921	4 636 182,52	11,13 0,438	25,4 1	25 0,984	64 2,52
HSS	203,2 8	4 572 180	233,2 9,181	4 636 182,52	12,7 0,5	25,4 1	30 1,181	64 2,52
HSA7 / HSA8	711,2 28	4 572 180	753,11 29,65	4 695,95 184,88	22,86 0,9	26,92 1,06	41,91 1,65	123,95 4,88
HRS	350 13,78	3 900 153,543	390 15,354	3 960 155,906	20 0,787	-	20 0,787	-
HRE	350 13,78	3 900 153,543	390 15,354	3 960 155,906	5 0,197	-	20 0,787	-

Not all cross sections and widths are possible with every shaft diameter. Contact SKF for information on dimensions at the extreme limits or for sizes outside the standard range.

Radial shaft seals | Seals for heavy industrial applications

Table 7

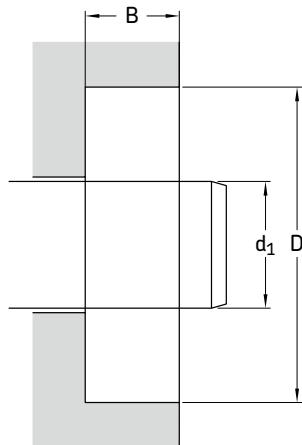
Standard size options for HRS seals

Shaft diameter d ₁		Bore diameter D		Bore depth B		Difference between bore and shaft diameter	
from	to	from	to	HRS, HRSA	HRS, HRE	min.	min. recommended
mm/in		mm/in		mm/in		mm/in	
350	3 900	390	3 960	≥ 20	≥ 25	≥ 20	≥ 25
13.780	153.543	15.354	155.906	0.787	0.984	0.787	0.984

¹⁾ Tolerance h11²⁾ Tolerance H8³⁾ Tolerance ±0,13 mm (0,005 in)

Not all cross sections and widths are possible with every shaft diameter. Contact SKF for information on dimensions at the extreme limits or on sizes outside the standard range.

Radial shaft seals | Seals for heavy industrial applications – metric dimensions

 d_1 100–190 mm

In all listed sizes seals can be configured to application requirements. Not all combinations of sizes and designs are possible, please refer to tables for seal design selection **pages 176 to 183** and size capabilities **page 201 to 202** or contact your SKF representative.



Principal dimensions

d_1	D	B	d_1	D	B	d_1	D	B	d_1	D	B
100	130	12,5	125	155	14	145	185	16	170	195	13
105	130	12	125	157	12,5	145	185	18	170	200	12
105	130	13	125	160	12	146	178	16	170	200	15
105	135	12	125	160	15	149	178	13	170	200	16
105	135	13	125	165	15	149	180	13	170	205	16
105	140	12	125	165	15,8	150	180	12	170	210	16
105	143	16	125	165	16	150	180	13	170	210	20
105	145	16	125	170	13	150	180	14	170	211	16
107	147	16	126	160	15	150	180	15	170	220	15
110	135	12,5	127	165	16	150	180	16	175	200	15
110	140	12	130	155	12,5	150	182	16	175	205	15
110	140	13	130	155	15,5	150	185	18	175	213	19
110	140	15	130	160	12	150	186	20	175	215	15
110	140	16	130	160	15	150	190	15	175	215	16
110	142	12	130	160	18	150	190	16	178	210	14
110	143	18	130	165	13	150	195	16	179	219	16
110	145	19	130	165	18	151	183	13	180	205	12
110	150	16	130	170	12	152	181	12,5	180	205	13
110	150,1	16	130	170	16	152	191	13	180	210	12
110	152	15	133	165	12,5	152,5	183	15	180	210	14
113	140	13	135	160	12	155	180	12,5	180	210	15
114	139	15	135	161	13	155	180	13	180	210	16
114	140	13,3	135	165	12	155	190	13	180	210	20
115	140	12	135	167	15	155	190	15	180	215	15
115	140	13	135	170	12	155	195	16	180	215	16
115	145	15	135	170	15	155	195	18	180	215	18
115	150	12	135	170	16,5	156	185	13	180	215	19
115	150	15	135	175	16	156	200	16	180	220	15
115	155	16	140	165	12	160	185	12,5	180	220	16
118	150	15	140	168	21	160	188	21	180	220	20
120	140	12	140	170	12	160	190	14,3	180	222	16
120	145	15,5	140	170	14	160	190	15	181	219	15
120	150	12	140	170	15	160	190	16	182	215	16
120	150	13	140	170	16	160	190	16,5	185	215	15
120	150	14	140	175	15	160	190	20	185	220	12,7
120	150	15	140	178	16	160	196	20	185	225	16
120	150	16	140	180	15	160	200	15	185	225	16,5
120	152	16	140	180	16	160	200	15,9	186	226	16
120	155	18	140	180	17	160	200	16	188	215	16
120	160	12	145	170	13	160	200	17	189	215	16
120	160	15	145	174	14	160	211	16	190	215	16
120	160	16	145	175	14	162	190	12	190	220	13
120	160	18	145	175	15	162	202	16	190	220	15
120	170	16	145	180	12	165	190	13	190	220	16
125	150	12	145	180	13	165	190	15	190	225	15
125	150	13	145	180	14	165	195	15	190	225	16
125	151	17	145	180	15	165	200	15	190	225	18
125	155	12	145	180	18	165	205	16	190	230	15
125	155	12,5	145	180	20	166	206	16	190	230	16

Please use size tables in section *Size options of heavy industrial seals* on *page 200* to determine your required seal type and size.

Radial shaft seals | Seals for heavy industrial applications – metric dimensions

d₁ 190–285 mm

Principal dimensions

d ₁	D	B									
190	230	17	220	250	22	240	280	16	265	305	18
190	230,1	16	220	255	16	240	280	18	265	309	20
190	234	20	220	255	18	240	280	19	265	310	16
190	235	16	220	255	18,3	240	280	20	265	310	22
190	240	20	220	260	14,3	240	280	22	266	310	20
195	220	12,7	220	260	15	240	280	23	267	308	19
195	220,4	17,7	220	260	16	240	290	16	267	308	20
195	235	16	220	260	16,5	240	290	20	267	308	22
195	250	22	220	260	18	240	290	25	267	315	15
197	236	16	220	260	19	240	300	25	270	260	15
200	225	15	220	260	20	241	279	19	270	300	15
200	230	14	220	260	22	244	284	16	270	310	15
200	230	15	220	275	23	245	275	16	270	310	16
200	230	16	224	260	16	245	285	16	270	310	18
200	230,1	15	224	274	20	245	288	16	270	310	20
200	235	15	225	250	15	245	290	15	270	310	20,5
200	235	16	225	250	16	248	298	19	270	310,3	16
200	235	18	225	255	15	250	280	15	270	314	19
200	235	19	225	257	16	250	280	16	270	314	20
200	235	20	225	260	20	250	280	20	270	314	26
200	238	19	225	260	22	250	280	22	270	320	16
200	238,1	18	225	265	16	250	285	15	270	330	18
200	238,1	19,1	225	265	20	250	285	16	270	330	25
200	240	15	225	290	16	250	285	17	270	335	18
200	240	16	226	258	16	250	285	18	272	304	15,8
200	240	17,5	226	270	16	250	290	15	272	304	16
200	240	18	226	276	22,3	250	290	16	273	311	15
200	240	20	228	268	16	250	290	16,5	273	317	19
200	250	15	228	268	20	250	290	18	275	307	13
200	250	18	229	267	19	250	290	20	275	310	15
200	255	22	229	270	17	250	294	20	275	310	16
203	241	16	230	260	15	250	295	24	275	315	18
205	230	15	230	260	15,7	250	300	20	275	315	20
205	245	16	230	260	16	250	310	25	275	319	18
205	245	20	230	260	18	254	290	15	275	319	20
205	250	16	230	260	20	254	305	21	275	320	15
208	233	12,5	230	262	15	255	290	16	275	320	16
210	235	13	230	264	16	255	290,1	16	278	312	16
210	235	15,8	230	265	16	255	295	16	279	310	16
210	240	12	230	265	18	255	299	20	279	323	20
210	240	14	230	265	20	255	315	25	280	310	14
210	240	15	230	269	22	256	300	20	280	310	15
210	240	16	230	270	16	258	290	16	280	310	16
210	240	18	230	270	18	260	285	12,7	280	310	20
210	240	20	230	270	20	260	285	13	280	315	15
210	245	16	230	280	16	260	285,4	12,7	280	318	15
210	245	16,5	230	280	20	260	290	16	280	318,7	27
210	245	18	230	285	23	260	290	19	280	320	16
210	245	18,2	230	320	18	260	290	20	280	320	17
210	250	15	235	265	15	260	295	17	280	320	18
210	250	16	235	265	15,3	260	298	17	280	320	19
210	250	18	235	267	15	260	300	14	280	320	19,1
210	250	20	235	270	15	260	300	14,4	280	320	19,6
210	260	15	235	270	16	260	300	15	280	320	20
210	265	23	235	273	19	260	300	16	280	320	22
210	270	15	235	275	16	260	300	18	280	322	20
210	270	16	235	275	20	260	300	20	280	324	20
215	240	12	236	276	16	260	300	22	280	325	20
215	240	20	238	270	16	260	304	20	280	325	22
215	245	16	238	290	25	260	305	16	280	325	24
215	248	15	240	265	13	260	305	22	280	330	20
215	250	16	240	270	12,7	260	310	16	280	330	20,6
215	255	16	240	270	13,5	260	315	24	280	330	24
215	265	21,5	240	270	15	260	320	25	280	340	15
215	270	23	240	270	16	261	311	16	280	340	20
216	254	16	240	270	17	264	310	13	280	340	25
218,4	250	15	240	270	18	264	310	17	280	350	16
219	250	12	240	275	15	264,8	300	20	285	310	13
220	250	12	240	275	16	264,8	304	20	285	310	16
220	250	15	240	275	18	265	295	15	285	320	16
220	250	16	240	275,1	18	265	300	15	285	320	20
220	250	16,5	240	279	22	265	300	16	285	324	20
220	250	18	240	279,9	16	265	303	15	285	325	16
220	250	20	240	280	14	265	303	16	285	325	18

Please use size tables in section *Size options of heavy industrial seals on page 200* to determine your required seal type and size.

Screws for heavy industrial applications – metric dimensions

d₁ 285–380 mm

Principal dimensions

d ₁	D	B	d ₁	D	B	d ₁	D	B	d ₁	D	B
285	325	20	310	355,6	20	330	384	18	356	432	28
285	329	20	310	360	22	330	390	18	360	390	15,9
286	336,6	15	310	370	25	330	390	20	360	390	18
289	327	19	311	345	18	330	390	25	360	392	15,9
290	320	15	311	345	18,3	331	371	14	360	392	20
290	320	16	314	355	20	331	371	15	360	398	19
290	320	18	315	345	14	331	371	16	360	398	20
290	329,7	16	315	345	20	335	365	16	360	400	5
290	330	16	315	347	13	335	373	19	360	400	17
290	330	18	315	355	16	335	375	15	360	400	18
290	330	20	315	355	18	335	375	18	360	400	20
290	330	20,3	315	355	20	335	379	20	360	400	22
290	334	20	315	359	22	335	380	20	360	400	23
290	334	20,3	315	360	20	335	395	16	360	400	25
290	334	20,5	315	364	20	336	380	20	360	404	5
290	335	24	315	365	20	340	370	16	360	404	16
290	340	20	316	360	20	340	370	18	360	404	17,5
290	350	15	317	352	16	340	372	16	360	404	20
290	350	25	317	352	23	340	372	18	360	405	25
292	336	20	317	361	20	340	372	20	360	410	5
292	350	16	318	348	19	340	380	15	360	410	20
295	325	15	318	360	20	340	380	16	360	410,8	22,3
295	330	16	320	350	15	340	380	18	360	411	22,3
295	330	17,5	320	350	15,4	340	380	20	360	420	15
295	330	18	320	350	16	340	380	22	360	420	25
295	335	16	320	350	18	340	384	20	362	400	16
295	335	18	320	350	20	340	385	20	362	400	20
295	339	20	320	355	16	340	390	25	362	402	18
295	344	20	320	358	19	340	400	25	362	406	5
296	340	20	320	358	20	342	380	16	362	406	19,5
298	338	16	320	360	12	343	381	21	362	406	19,8
298	340	17	320	360	15	345	384	20	362	406	20
300	325,4	12,7	320	360	16	345	389	20	362	406	22
300	330	14	320	360	18	345	390	25	362	412	25
300	330	15	320	360	20	345	395	20	363	418	5
300	332	16	320	360	22	346	375	15	363	418	20
300	335	15	320	360	22,2	348	380	16	364	406	17
300	335	18	320	360	25	349	395	18	364	420	25
300	340	16	320	364	20	350	380	15	364,5	400	20
300	340	16,5	320	368,1	19	350	380	16	365	400	17
300	340	18	320	370	25	350	380	17,7	365	405	5
300	340	20	320	380	25	350	380	20	365	405	18
300	340	22	323	363	16	350	380	20,5	365	405	20
300	340	22,2	324	362	17,5	350	382	20	365	409	5
300	344	16	324	365	22	350	390	5	365	409	20
300	344	20	325	360	20	350	390	16	366	410	5
300	344	22	325	363	16	350	390	18	367	405	18
300	345	22	325	365	16	350	390	20	370	410	5
300	345	25	325	365	18	350	391	16	370	410	15
300	350	24	325	365	20	350	394	5	370	410	16
300	350	25	325	368	20	350	394	20	370	410	18
300	360	20	325	369	19,3	350	394	20,1	370	410	20
300	360	25	325	369	20	350	394	21	370	414	5
300	390	20	325	370	20	350	394	22	370	414	13
300	390	25	325	375	22,8	350	400	5	370	414	16
302	342	16	325	375	25	350	400	17	370	414	19
304	348	20	328	372	20,2	350	400	25	370	414	20
305	345	20	330	360	14	350,6	395	5	370	420	5
305	349	20	330	360	18	351	390	20	370	420	15
305	355	22,5	330	365	14	351	391	16	370	420	20
308	352	20	330	370	14	351	407	24	370	420	25
310	310	16	330	370	15	355	393	18	375	419	5
310	340	15	330	370	16	355	393	20	375	419	20
310	340	20	330	370	18	355	394	20	375	420	16
310	345	18	330	370	20	355	395	5	375	420	18
310	350	16	330	370	21	355	395	20	375	435	25
310	350	18	330	370	25	355	399	5	376	427	5
310	350	20	330	374	17	355	399	20	380	412	16
310	353	20	330	374	18	355	405	5	380	418	19
310	354	19,3	330	374	19	355	405	20	380	419	24
310	354	20	330	374	20	356	400	5	380	419	25
310	354	20,5	330	380	19	356	400	16	380	420	5
310	355	20	330	380	20	356	400	20	380	420	15
310	355	24	330	380	22	356	432	5	380	420	16

Please use size tables in section Size options of heavy industrial seals on page 200 to determine your required seal type and size.



Radial shaft seals | Seals for heavy industrial applications – metric dimensions

d₁ 380–490 mm

Principal dimensions

d ₁	D	B									
380	420	18	400	450	17,5	430	480	27,5	460	500	23
380	420	19	400	450	18	430	480	30	460	504	20
380	420	20	400	450	18,1	430	490	25	460	510	5
380	420	22	400	450	20	431	488	19	460	510	20
380	420	22,2	400	450	22	432	463	17	460	510	20,6
380	420	25	400	450	22,5	432	470	21,5	460	510	21
380	423,9	5	400	450	25	432	470	22	460	510	21,5
380	424	5	400	451	5	435	475	20	460	510	22
380	424	20	400	451	22,2	435	485	5	460	510	25
380	425	20	400	460	5	435	485	18	460	520	20
380	429	5	400	460	25	435	485	22	460	520	25
380	429	24	405	449	5	435	485	22,6	461	495	20
380	430	19	405	449	20	435	485	23	461,5	540	5
380	430	20	405	455	5	438	476	24	461,5	540	31
380	430,8	5	405	455	22	440	470	20	463	528	20
380	435	5	405	455,6	5	440	472	16	465	495	20
380	435	25	410	350	18	440	472	20	465	510	20
380	440	5	410	440	16	440	480	5	465	510	22
380	440	16	410	450	5	440	480	20	465	520	22
380	440	23	410	450	17,5	440	480	21	467	510	5
380	440	25	410	450	18	440	480	22,2	467	510	20
384	414	15	410	450	20	440	480	26	467	510	25
385	421	16	410	454	5	440	484	20	467,1	510	5
385	425	18	410	454	19	440	484,3	19	468	530	20
385	425	18,3	410	454	20	440	490	5	470	508	19
385	429	5	410	460	5	440	490	20	470	510	5
385	429	20	410	460	22	440	490	20,5	470	510	18
385	432	15	410	460	25	440	490	22	470	510	20
385	435	5	410	470	16	440	490	25	470	510	22
385	435	22	410	470	25	440	490	28	470	520	5
385	435	25	413	463	5	442	472	20	470	520	20
387	431	5	413	463	22	445	485	18	470	520	20,7
387	431	22	415	465	5	445	485	20	470	520	22
387	431	22,5	415	465	20	445	495	5	470	520	24
387	438	5	415	465	22	445	495	22	470	520	25
387,4	431	5	415	465	25	446	486	16	470	530	5
388	418	15	416	466	5	446	486	16,5	470	530	20
390	420	14	416	466	21,5	446	496	22	470	530	25
390	420	16	418	455	16	448	480	16	470	530	30
390	420	20	419	451	19	449	500	5	474	514	5
390	424,8	13,5	420	460	5	449	500	23	474	514	20
390	430	5	420	460	15	450	480	17,5	475	505	17
390	430	16	420	460	17	450	480	20	475	525	5
390	430	18	420	460	18	450	490	18	475	525	22
390	430	19	420	460	20	450	490	20	475	525	25
390	430	20	420	460	22,2	450	490	22	475	525,8	5
390	434	5	420	464	5	450	494	5	475	530	18
390	434	18	420	464	20	450	494	20	475,8	520	5
390	434	20	420	470	5	450	500	5	475,8	520	22
390	434	22	420	470	20	450	500	18	480	450	20
390	435	25	420	470	22	450	500	20	480	514	15
390	450	25	420	470	23	450	500	22	480	520	5
392	432	18	420	470	25	450	500	22,4	480	520	18
395	430	16	420	480	5	450	500	23	480	520	20
395	430	18	420	480	24	450	500	24	480	520	22
395	430	20	420	480	25	450	500	25	480	524	5
395	439	5	425	465	20	450	510	25	480	524	20
395	439	19	425	475	5	452	496	15	480	530	5
395	439	20	425	475	25	452	503	20,7	480	530	18
395	439	20,5	425	480	22	454	500	18	480	530	20
399	431	19	425	483	5	454	504	5	480	530	22
400	430	20	425	483	23	454	504	21	480	530	25
400	440	5	430	460	15	455	505	5	480	540	20
400	440	14	430	468	22	455	505	21,8	480	540	25
400	440	18	430	470	20	455	505	22	480	550	5
400	440	20	430	474	5	455	505	25	480	550	25
400	440	22	430	474	20	457	508	5	485	530	20
400	444	5	430	480	5	458	494	18	485	535	5
400	444	13,5	430	480	16	458	505	20,6	485	535	19
400	444	20	430	480	18	460	500	5	485	535	20
400	444	22	430	480	20	460	500	16	485	535	22
400	444,5	22	430	480	21,5	460	500	18	490	530	5
400	447	20	430	480	22	460	500	20	490	530	20
400	450	5	430	480	25	460	500	22	490	530	20,5

Please use size tables in section *Size options of heavy industrial seals on page 200* to determine your required seal type and size.

Seals for heavy industrial applications – metric dimensions

d₁ 490–630 mm

Principal dimensions

d ₁	D	B									
490	540	5	520	560	18	550	600	20	590	640	5
490	540	22	520	560	20	550	600	22	590	640	20
490	540	25	520	564	5	550	600	22,3	590	640	22
490	541	21	520	564	20	550	600	23,5	590	640	22,8
493	543	5	520	570	5	550	600	25	590	640	25
493	543	26	520	570	18	550	610	5	600	640	5
495	545	5	520	570	22	550	610	25	600	640	18
495	545	22	520	570	22,6	550	620	25	600	640	20
495	560	25	520	570	24	550	660	23,5	600	640	25
495,5	546	5	520	570	25	555	605	5	600	649,2	5
495,5	546	22	520	580	20	555	605	22	600	650	5
497	540	5	520	580	25	556	610	25	600	650	18
497	540	20	524	574	25	559	597	19	600	650	22
500	540	5	525	555	18	560	590	20	600	650	25
500	540	16	525	569	5	560	600	5	600	660	5
500	540	20	525	569	20	560	600	18	600	660	18
500	540	22	525	575	5	560	600	20	600	660	25
500	544	5	525	575	20	560	603	5	600	660	30
500	544	20	525	575	22	560	603	20	600	664	5
500	544	22	525	575	25	560	604	5	600	664	25
500	544,5	5	528	578	5	560	604	16	604	640	22
500	545	5	528	578	22	560	604	20	605	640	20
500	545	20	530	570	20	560	610	5	605	645	18
500	545	20,5	530	570	22	560	610	20	605	655	5
500	550	5	530	574	20	560	610	22	605	655	20
500	550	18	530	575	20	560	610	22,3	605	655	22
500	550	19	530	576	21	560	610	25	610	620	20
500	550	20	530	580	5	560	610	26	610	650	20
500	550	22	530	580	20	560	620	25	610	650	22,5
500	550	24,5	530	580	20,6	565	601	20	610	650	25
500	550	25	530	580	22	565	615	5	610	654	20
500	550,8	5	530	580	22,3	565	615	22	610	660	5
500	558,8	5	530	580	24,2	565,2	616	5	610	660	20
500	558,8	22	530	580	24,5	569,9	619,1	5	610	660	22
500	560	5	530	580	25	570	604	15	610	660	25
500	560	18	530	580,8	5	570	610	18	610	674	5
500	560	25	530	580,8	21	570	610	20	610	674	22
500	564	5	530	590	5	570	616	19	610	674	25
500	564	25	530	590	38	570	620	5	614	658	5
502	542	5	530	620	5	570	620	20	614	658	20
502	542	20	530	620	22	570	620	22	615	645	20
503	552	5	534	584	5	570	620	25	615	665	5
503	552	20	534	584	22	574	610	16	615	665	20,5
503	553	5	535	580	20	575	619	5	615	665	24
503	553	22	535	585	5	575	619	20	615	665	24,5
505	535	15	535	585	22	575	625	5	616	666,8	5
505	555	20,6	535	585	27	575	625	22	616	666,8	22
508	558,8	5	538	570	20	580	550	20	616	679,8	5
508	559	19	538	590	20	580	610	20	616	679,8	25
508	560	25	540	570	20	580	615	20	616	680	5
508	565	22,5	540	580	20	580	616	16	616	680	25
510	520	20	540	584	5	580	616	17	620	660	20
510	548	24	540	584	20	580	620	5	620	670	5
510	548	25	540	585	18	580	620	20	620	670	20
510	550	5	540	590	5	580	620	25	620	670	22
510	550	17,5	540	590	18	580	630	5	620	680	20
510	550	20	540	590	20	580	630	18	620	684	5
510	554	5	540	590	22	580	630	22	620	684	25
510	554	19,5	540	590	22,6	580	630	25	625	655	20
510	554	20	540	590	25	580	640	16	625	665	25
510	560	5	540	590	27,5	580	640	25	625	670	5
510	560	22	540	590	30	580	650	25	625	670	20
510	560	22,5	540	600	20	585	620	20	625	675	25
510	560	25	542	578	16	585	635	5	625	675,8	19
511	561	22	542	578	18	585	635	22	625	676	19
513	543	16	545	595	5	586	646	5	625	689	5
515	555	5	545	595	22	586	646	22	625	689	25
515	555	20	548	610	25	586	650	25	630	660	15
515	565	5	549	600,8	5	587	637	5	630	660	25
515	565	22	549,3	600,1	5	587	637	22	630	670	20
515	565	25	550	590	5	588	638	5	630	674	20
519	560	21	550	590	20	588	638	23	630	680	5
519	560	25	550	600	5	590	630	20	630	680	22
520	560	5	550	600	19	590	630	22	630	680	25

Please use size tables in section *Size options of heavy industrial seals* on page 200 to determine your required seal type and size.

Radial shaft seals | Seals for heavy industrial applications – metric dimensions

d₁ 630–800 mm

Principal dimensions

d ₁	D	B	d ₁	D	B	d ₁	D	B	d ₁	D	B
630	690	5	668	706	25	710	774	25	760	804	5
630	690	20	670	704	15	710	774	30	760	804	20
630	690	25	670	710	5	711	775	5	760	810	20,6
630	690	30	670	710	18	711	775	25	760	810	25
630	694	5	670	710	20	712	757	20,5	760	813	22
630	694	25	670	714	5	715	779	25	760	820	5
635	685	5	670	714	20	716	780	5	760	820	18
635	685	22	670	714	22	716	780	25	760	820	25
635	699	5	670	720	24	720	760	18	760	820	30
635	699	25	670	720	25	720	770	25	760	824	22
635	705	5	670	730	25	720	771,1	21	760	824	25
635	705	30	670	734	5	720	780	5	760	830	5
636	692	5	670	734	22	720	780	25	760	830	30
636	692	30,5	670	734	25	720	784	5	762	791	13
638	678	20	672	737	5	720	784	23	762	812,8	5
640	680	5	672	737	25	720	784	25	762	825,5	5
640	680	20	676	740	5	724	775	5	770	810	20
640	680	25	676	740	22	724	775	22	770	834	5
640	684	5	676	740	25	725	775	25	770	834	20
640	684	20	676	740	28	725	789,2	25	770	834	25
640	688	5	679,5	743	5	730	770	5	775	825	5
640	688	20	679,5	743	25	730	770	20	775	825	25
640	690	5	680	700	20	730	780	5	775	839	5
640	690	22	680	720	5	730	780	20	775	839	25
640	690	25	680	720	20	730	780	22	775	839	31
640	700	25	680	730	5	730	780	25	776	820	5
640	704	5	680	730	20	730	790	25	776	820	20
640	704	25	680	730	22	730	794	5	778	818	20,5
641	707	5	680	730	25	730	794	25	780	820	18
641	707	25	680	744	5	735	795	25	780	820	19
645	695	5	680	744	25	735	799	5	780	820	20
645	695	22	680	780	5	735	799	25	780	830	5
645	700	22	680	780	20	736	800	5	780	830	22
647	700	25	685	720	20	736	800	25	780	830	25
648	690	20	685	735	5	737	790	16	780	830	27,5
650	680	15	685	735	22	740	780	5	780	844	5
650	686	20	685	737	5	740	780	16,5	780	844	20
650	690	5	685	737	22	740	780	18	780	844	25
650	690	18	685	749	5	740	780	25	786	836	5
650	690	20	685	749	25	740	782	18	786	836	25
650	690	22	686	740	5	740	785	18	790	830	5
650	690	25	686	740	25	740	790	16	790	830	23
650	700	5	690	730	20	740	790	20	790	834	5
650	700	20	690	734	20	740	790	25	790	834	25
650	700	22	690	740	5	740	804	5	790	840	5
650	700	25	690	740	22	740	804	25	790	840	20
650	710	25	690	740	25	744	808	5	790	840	22
650	714	5	690	754	5	744	808	25	790	840	25
650	714	25	690	754	25	744	808	30	790	845	5
655	690	20	692	732	15	748	812	5	790	845	25
658	703	25	700	740	20	748	812	25	790	850	5
658	716	25	700	750	5	750	780	18	790	850	25
660	650	20	700	750	20	750	790	5	790	850	30
660	690	18	700	750	25	750	790	20	790	854	5
660	700	5	700	760	5	750	790	23	790	854	25
660	700	15	700	760	25	750	800	5	799	860	5
660	700	18	700	760	30	750	800	22	799	860	26
660	700	20	700	764	5	750	800	25	800	840	5
660	700	25	700	764	20	750	800	27,5	800	840	16
660	704	5	700	764	25	750	800	28	800	840	18
660	704	18	700	765	25	750	810	5	800	840	20
660	704	20	710	750	20	750	810	22	800	840	25
660	710	5	710	750	23	750	810	25	800	850	20
660	710	22	710	760	5	750	810	30	800	850	25
660	710	25	710	760	20	750	810	36	800	860	5
660	716	25	710	760	22	750	814	5	800	860	16
660	720	22	710	760	22,2	750	814	25	800	860	25
660	724	5	710	760	24,9	750	814	28	800	860	30
660	724	25	710	760	25	750	840	5	800	864	5
664	715	25	710	770	5	750	840	25	800	864	23
665	715	5	710	770	25	750,1	810	5	800	864	25
665	715	22	710	770	30	760	800	5	800	865	5
665	729	5	710	774	5	760	800	20	800	865	25
665	729	25	710	774	22	760	800	20,6	800	870	5

Please use size tables in section *Size options of heavy industrial seals on page 200* to determine your required seal type and size.

Seals for heavy industrial applications – metric dimensions

 d_1 800–1140 mm

Principal dimensions

d_1	D	B	d_1	D	B	d_1	D	B	d_1	D	B
800	870	25	850	924	25	920	984	25	1 000	1 035	20
800	870	30	850	925	25	925	975	22	1 000	1 050	20
800	874	5	853	917	20	927	978	22	1 000	1 050	23
800	874	25	853	917	22,1	930	980	5	1 000	1 050	25
805	869	5	853	917	25	930	980	20	1 000	1 060	5
805	869	25	860	900	20	930	980	22,2	1 000	1 060	20
810	850	17	860	920	5	930	980	25	1 000	1 060	25
810	850	20	860	920	22	930	990	5	1 000	1 060	30
810	854	5	860	920	25	930	990	25	1 000	1 064	5
810	854	20	860	924	5	930	994	5	1 000	1 064	25
810	860	5	860	924	16	930	994	25	1 020	1 070	20
810	860	21	860	924	25	930	1 000	5	1 020	1 070	25
810	860	25	860	950	5	930	1 000	30	1 020	1 080	5
810	870	5	860	950	32	934	984	5	1 020	1 080	20,5
810	870	25	864	928	5	934	984	22	1 020	1 080	25
810	874	5	864	928	25	934	984	25	1 020	1 084	5
810	874	22	865	911	18	939	971	22,2	1 020	1 084	25
810	874	23	867	920	16	940	995	5	1 026	1 066	20
810	874	25	870	910	20	940	995	25	1 026	1 076	25
815	865	5	870	920	5	940	1 000	25	1 040	1 100	5
815	865	25	870	920	16	940	1 004	5	1 040	1 100	20
816	866,8	5	870	920	20	940	1 004	25	1 040	1 100	25
820	860	16	870	920	25	950	980	18	1 040	1 104	5
820	860	18	870	930	25	950	990	18	1 040	1 104	25
820	860	20	870	934	5	950	990	20	1 050	1 090	20
820	870	5	870	934	24	950	1 000	5	1 050	1 114	5
820	870	22	870	934	25	950	1 000	25	1 050	1 114	25
820	870	25	870	935	23	950	1 006	20	1 054	1 105	20
820	884	5	880	940	5	950	1 010	5	1 055	1 100	25
820	884	25	880	940	25	950	1 010	25	1 055	1 119	5
820	884	28	880	940	30	950	1 010	30	1 055	1 119	25
825	860	20	880	944	5	950	1 014	5	1 056	1 120	5
825	875	5	880	944	22	950	1 014	25	1 056	1 120	25
825	875	22	880	944	25	953	1 003	5	1 060	1 100	20
825	875	25	880	944	25,6	953	1 003	22	1 060	1 110	5
825,5	877	20	885	919	15	953	1 003	25	1 060	1 110	20
826	876	5	890	930	18	954	1 004	5	1 060	1 110	25
826	876	30	890	930	20	954	1 004	22	1 060	1 120	5
830	874	20	890	930	23	954	1 004	25	1 060	1 120	30
830	890	5	890	940	5	955	1 019	5	1 060	1 124	5
830	890	23	890	940	25	955	1 019	25	1 060	1 124	25
830	894	5	890	954	5	960	1 000	20	1 070	1 120	20
830	894	22	890	954	22	960	1 000	25	1 070	1 125	25
830	894	25	890	954	25	960	1 020	25	1 070	1 140	25
835	899	5	893	925	20	960	1 024	5	1 073	1 104	15
835	899	25	900	940	5	960	1 024	25	1 080	1 130	20
836	896	5	900	940	20	960	1 040	23	1 080	1 140	5
836	896	30	900	950	25	965	1 015	5	1 080	1 140	25
837	889	22,2	900	960	5	965	1 015	22	1 080	1 145	25
838	880	5	900	960	25	965	1 015	25	1 090	1 150	5
838	880	20	900	960	27	970	1 020	5	1 090	1 150	30
840	880	18	900	960	30	970	1 020	22	1 100	1 140	20
840	880	23	900	964	5	970	1 020	25	1 105	1 154	25
840	890	25	900	964	25	970	1 030	5	1 105	1 155	5
840	892	18	900	964	32	970	1 030	21,5	1 105	1 155	22
840	900	25	900	980	5	970	1 030	22	1 105	1 155	25
840	904	5	900	980	23	970	1 030	25	1 105	1 160	5
840	904	25	910	950	25	970	1 034	5	1 105	1 160	22
840	910	25	910	960	5	970	1 034	25	1 105	1 160	25
850	890	5	910	960	25	975	1 034	25	1 105	1 169	25
850	890	20	910	966	17,9	978	1 018	18	1 110	1 160	5
850	900	5	910	966	18	980	1 030	5	1 110	1 160	22
850	900	19	910	967	17,9	980	1 030	30	1 110	1 160	25
850	900	20	910	974	5	985	1 045	5	1 110	1 174	5
850	900	22	910	974	22	985	1 045	25	1 110	1 174	25
850	904	5	910	974	25	990	1 030	20	1 120	1 160	20
850	904	25	920	958	19	990	1 040	5	1 120	1 184	5
850	910	5	920	970	5	990	1 040	22	1 120	1 184	25
850	910	22	920	970	20	990	1 040	25	1 130	1 194	5
850	910	25	920	970	25	990	1 045	25	1 130	1 194	25
850	910	30	920	980	5	990	1 054	5	1 135	1 198	25
850	914	5	920	980	25	990	1 054	25	1 140	1 180	20
850	914	25	920	980	30	992	1 037	25	1 140	1 190	5
850	924	5	920	984	5	995	1 025	15	1 140	1 190	25

Please use size tables in section *Size options of heavy industrial seals* on page 200 to determine your required seal type and size.

Radial shaft seals | Seals for heavy industrial applications

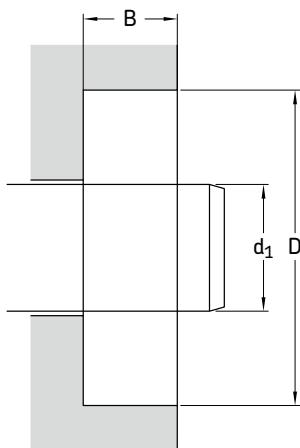
d₁ 1140-5 220 mm

Principal dimensions

d ₁	D	B	d ₁	D	B	d ₁	D	B
1140	1210	25	1415	1479	5	2160	2220	25
1150	1200	18	1415	1479	25	2197	2257	24
1160	1200	18	1435	1499	5	2204	2264	24
1160	1200	20	1435	1499	25	2247	2300	5
1166	1230	5	1437	1505	5	2247	2300	25
1166	1230	25	1437	1505	25	2247,8	2300	5
1175	1239	5	1475	1598	25	2248	2300	25
1175	1239	25	1480	1544	5	2320	2384	25
1178	1242	5	1480	1544	25	2340	2404	25
1178	1242	25	1530	1580	20	2350	2414	5
1178	1245	25	1540	1580	20	2350	2414	25
1180	1230	20	1540	1590	5	2422	2486	5
1180	1244	25	1540	1590	22	2422	2486	25
1184	1248	25	1540	1590	25	2470	2534	25
1200	1250	5	1550	1610	25	2480	2544	5
1200	1250	22	1550	1614	5	2480	2544	35
1200	1250	25	1550	1614	25	2680	2740	5
1200	1264	5	1556	1620	5	2680	2740	30
1200	1264	22,2	1556	1620	25	2680	2744	5
1200	1264	25	1560	1624	5	2680	2744	25
1220	1255	20	1560	1624	25	2850	2900	20,6
1220	1284	5	1566	1616	17,5	2900	2959	17,3
1220	1284	25	1580	1644	25	2917	2985	5
1238	1338	25	1587,5	1625,8	22,2	2917	2985	25
1248	1298	21	1600	1664	5	2920	2955	25
1250	1300	5	1600	1664	25,3	2920	2985	5
1250	1300	20	1610	1660	5	2920	2985	25
1250	1300	25	1610	1660	20	2925	2985	5
1250	1314	5	1610	1660	25	2925	2985	25
1250	1314	21,5	1610	1670	5	3000	3050	20,6
1250	1314	25	1610	1670	20	3060	3110	20
1260	1300	18	1610	1670	25	3170	3234	5
1270	1320	25	1620	1684	5	3170	3234	25
1280	1340	25	1620	1684	25	3170	3234	35
1280	1344	5	1625	1675	5	3560	3680	25
1280	1344	25	1625	1675	25	3572	3636	25
1285	1350	5	1650	1700	5	3820	3890	5
1285	1350	25	1650	1700	20	3820	3890	35
1305	1355	5	1650	1700	25	4760	4883	25
1305	1355	25	1656	1720	5	4800	4860	25
1310	1374	5	1656	1720	25	4800	4920	25
1310	1374	25	1660	1708	17,5	5220	5340	25
1320	1370	5	1675	1725	20			
1320	1370	20	1675	1725	20,6			
1320	1370	25	1710	1770	5			
1320	1384	5	1710	1770	25			
1320	1384	25	1750	1810	25			
1330	1380	5	1760	1824	25			
1330	1380	25	1810	1860	20			
1330	1394	5	1810	1860	20,6			
1330	1394	25	1835	1891	5			
1336	1400	5	1835	1891	25			
1336	1400	25	1835	1899	25			
1350	1415	25	1890	1950	5			
1356	1420	5	1890	1950	25			
1356	1420	25	1908	1958	21			
1360	1400	18	1910	1974	25			
1370	1420	19	1958	2016	5			
1370	1420	19,8	1958	2016	30			
1370	1420	20	2000	2050	20			
1375	1425	19,8	2000	2056	5			
1380	1420	18	2000	2056	25			
1380	1440	25	2016	2080	5			
1380	1445	25	2016	2080	25			
1380	1458	5	2047	2105	5			
1380	1458	32	2047	2105	30			
1385	1435	5	2080	2144	5			
1385	1435	25	2080	2144	25			
1400	1464	5	2130	2194	25			
1400	1464	20	2130,5	2194	5			
1400	1464	25	2130,5	2194	25			
1400	1464	35	2140	2204	5			
1410	1470	5	2140	2204	25			
1410	1470	30	2160	2220	5			

Please use size tables in section *Size options of heavy industrial seals* on page 200 to determine your required seal type and size.

Radial shaft seals | Seals for heavy industrial applications – inch dimensions

 d_1 4–4.438 in

In all listed sizes seals can be configured to application requirements. Not all combinations of sizes and designs are possible, please refer to tables for seal design selection **pages 176 to 183** and size capabilities **page 201 to 202** or contact your SKF representative.



Principal dimensions											
d_1	D	B	d_1	D	B	d_1	D	B	d_1	D	B
4	5	0.438	4.063	5.5	0.5	4.188	5.875	0.625	4.313	5.75	0.5
4	5	0.469	4.063	5.5	0.563	4.188	6	0.5	4.313	5.75	0.563
4	5	0.5	4.063	5.875	0.5	4.188	6	0.906	4.313	5.75	0.625
4	5	0.625	4.063	6	0.906	4.188	6.125	0.5	4.313	6	0.5
4	5	0.719	4.125	5.125	0.5	4.219	5.281	0.5	4.313	6.25	0.5
4	5	0.75	4.125	5.125	0.625	4.25	5.25	0.5	4.328	5.5	0.438
4	5	0.906	4.125	5.125	0.719	4.25	5.25	0.563	4.375	5.375	0.5
4	5.016	0.5	4.125	5.125	0.75	4.25	5.25	0.625	4.375	5.375	0.625
4	5.031	0.5	4.125	5.125	0.906	4.25	5.25	0.75	4.375	5.375	0.688
4	5.125	0.438	4.125	5.188	0.5	4.25	5.25	0.781	4.375	5.375	0.719
4	5.125	0.5	4.125	5.25	0.5	4.25	5.25	0.906	4.375	5.375	0.75
4	5.125	0.563	4.125	5.25	0.563	4.25	5.375	0.5	4.375	5.375	0.906
4	5.125	0.625	4.125	5.25	0.625	4.25	5.375	0.563	4.375	5.5	0.5
4	5.125	0.906	4.125	5.25	0.75	4.25	5.375	0.625	4.375	5.5	0.563
4	5.125	0.969	4.125	5.25	0.906	4.25	5.375	0.75	4.375	5.5	0.625
4	5.25	0.438	4.125	5.281	0.5	4.25	5.375	0.906	4.375	5.5	0.75
4	5.25	0.469	4.125	5.375	0.5	4.25	5.438	0.375	4.375	5.5	0.969
4	5.25	0.5	4.125	5.375	0.625	4.25	5.438	0.5	4.375	5.563	0.5
4	5.25	0.563	4.125	5.375	0.75	4.25	5.5	0.5	4.375	5.625	0.5
4	5.25	0.625	4.125	5.375	0.906	4.25	5.5	0.563	4.375	5.75	0.5
4	5.25	0.75	4.125	5.5	0.438	4.25	5.5	0.625	4.375	5.813	0.5
4	5.25	0.906	4.125	5.5	0.5	4.25	5.5	0.75	4.375	5.828	0.484
4	5.266	0.5	4.125	5.5	0.563	4.25	5.625	0.5	4.375	5.875	0.5
4	5.375	0.5	4.125	5.5	0.969	4.25	5.625	0.625	4.375	6	0.5
4	5.375	0.625	4.125	5.625	0.5	4.25	5.688	0.5	4.375	6	0.563
4	5.375	0.75	4.125	5.625	0.625	4.25	5.703	0.484	4.375	6	0.75
4	5.5	0.438	4.125	5.75	0.625	4.25	5.75	0.5	4.375	6.125	0.5
4	5.5	0.5	4.125	5.875	0.5	4.25	5.75	0.563	4.375	6.25	0.5
4	5.5	0.563	4.125	6	0.5	4.25	5.75	0.625	4.375	6.25	0.563
4	5.5	0.625	4.156	5.406	0.5	4.25	5.75	0.906	4.406	5.5	0.5
4	5.5	0.719	4.188	5.188	0.5	4.25	5.875	0.625	4.438	5.438	0.5
4	5.5	0.75	4.188	5.188	0.625	4.25	6	0.5	4.438	5.438	0.75
4	5.625	0.5	4.188	5.188	0.75	4.25	6.125	0.5	4.438	5.5	0.5
4	5.626	0.5	4.188	5.25	0.469	4.25	6.25	0.5	4.438	5.5	0.563
4	5.75	0.5	4.188	5.25	0.5	4.25	6.25	0.563	4.438	5.5	0.625
4	5.75	0.563	4.188	5.25	0.625	4.313	5.313	0.438	4.438	5.5	0.75
4	5.75	0.781	4.188	5.25	0.75	4.313	5.313	0.5	4.438	5.5	0.906
4	5.875	0.5	4.188	5.25	0.969	4.313	5.313	0.625	4.438	5.563	0.5
4	6	0.5	4.188	5.313	0.5	4.313	5.313	0.75	4.438	5.563	0.75
4	6	0.906	4.188	5.313	0.563	4.313	5.375	0.5	4.438	5.625	0.5
4.016	5.234	0.625	4.188	5.375	0.5	4.313	5.438	0.5	4.438	5.625	0.625
4.016	5.438	0.5	4.188	5.375	0.625	4.313	5.5	0.438	4.438	5.688	0.5
4.063	5.063	0.5	4.188	5.438	0.5	4.313	5.5	0.5	4.438	5.688	0.625
4.063	5.063	0.75	4.188	5.5	0.5	4.313	5.5	0.625	4.438	5.75	0.5
4.063	5.125	0.469	4.188	5.5	0.563	4.313	5.5	0.75	4.438	5.75	0.563
4.063	5.125	0.5	4.188	5.5	0.625	4.313	5.5	0.969	4.438	5.75	0.625
4.063	5.125	0.75	4.188	5.625	0.5	4.313	5.563	0.5	4.438	5.75	0.719
4.063	5.25	0.5	4.188	5.75	0.5	4.313	5.625	0.5	4.438	5.813	0.5
4.063	5.313	0.5	4.188	5.875	0.5	4.313	5.688	0.75	4.438	5.875	0.5

Please use size tables in section *Size options of heavy industrial seals* on *page 200* to determine your required seal type and size.

Radial shaft seals | Seals for heavy industrial applications – inch dimensions

d₁ 4.438–5.297 in

Principal dimensions

d ₁	D	B									
4.438	5.891	0.484	4.625	6	0.719	4.875	6.5	0.5	5	7	0.625
4.438	5.891	0.625	4.625	6	0.969	4.875	6.5	0.625	5	7	0.75
4.438	5.937	0.5	4.625	6.078	0.484	4.875	6.5	0.906	5.063	6.063	0.5
4.438	5.938	0.625	4.625	6.094	0.5	4.875	6.625	0.5	5.063	6.063	0.75
4.438	6	0.5	4.625	6.125	0.5	4.875	6.625	0.906	5.063	6.125	0.5
4.438	6	0.563	4.625	6.125	0.563	4.875	6.625	0.969	5.063	6.25	0.5
4.438	6	0.594	4.625	6.25	0.5	4.875	6.75	0.5	5.063	6.25	0.625
4.438	6.125	0.5	4.641	5.641	0.75	4.922	5.906	0.5	5.063	6.375	0.563
4.438	6.203	0.828	4.656	6.031	0.5	4.922	5.922	0.5	5.063	6.75	0.5
4.438	6.25	0.5	4.688	5.688	0.5	4.922	5.984	0.5	5.125	6.125	0.438
4.438	6.25	0.563	4.688	5.688	0.75	4.922	6.125	0.438	5.125	6.125	0.5
4.5	5.5	0.375	4.688	5.75	0.5	4.922	6.891	0.625	5.125	6.125	0.625
4.5	5.5	0.5	4.688	5.75	0.563	4.938	5.938	0.438	5.125	6.125	0.75
4.5	5.5	0.531	4.688	5.75	0.906	4.938	5.938	0.5	5.125	6.125	0.844
4.5	5.5	0.563	4.688	5.813	0.5	4.938	5.938	0.625	5.125	6.125	0.906
4.5	5.5	0.625	4.688	5.875	0.5	4.938	5.938	0.75	5.125	6.125	0.969
4.5	5.5	0.719	4.688	5.938	0.5	4.938	6	0.5	5.125	6.25	0.5
4.5	5.5	0.75	4.688	6	0.5	4.938	6	0.625	5.125	6.25	0.563
4.5	5.5	0.906	4.688	6	0.781	4.938	6	0.75	5.125	6.25	0.906
4.5	5.5	0.969	4.688	6	0.906	4.938	6.063	0.5	5.125	6.375	0.5
4.5	5.625	0.5	4.688	6.25	0.5	4.938	6.125	0.5	5.125	6.375	0.563
4.5	5.625	0.563	4.688	6.25	0.969	4.938	6.188	0.5	5.125	6.375	0.625
4.5	5.625	0.625	4.688	6.375	0.5	4.938	6.25	0.5	5.125	6.5	0.5
4.5	5.625	0.719	4.734	5.984	0.5	4.938	6.25	0.563	5.125	6.5	0.625
4.5	5.688	0.5	4.75	5.75	0.391	4.938	6.25	0.625	5.125	6.5	0.906
4.5	5.688	0.625	4.75	5.75	0.484	4.938	6.375	0.5	5.125	6.625	0.484
4.5	5.75	0.5	4.75	5.75	0.5	4.938	6.375	0.563	5.125	6.625	0.5
4.5	5.75	0.563	4.75	5.75	0.563	4.938	6.438	0.5	5.125	6.625	0.75
4.5	5.75	0.625	4.75	5.75	0.625	4.938	6.438	0.563	5.125	6.688	0.625
4.5	5.75	0.75	4.75	5.75	0.75	4.938	6.438	0.75	5.125	6.75	0.5
4.5	5.75	0.969	4.75	5.75	0.938	4.938	6.5	0.5	5.125	7	0.5
4.5	5.813	0.578	4.75	5.875	0.5	4.938	6.5	0.625	5.125	7	0.625
4.5	5.875	0.5	4.75	5.875	0.563	4.938	6.5	0.719	5.125	7	0.719
4.5	5.938	0.5	4.75	5.875	0.625	4.938	6.5	0.906	5.188	6.188	0.5
4.5	5.984	0.625	4.75	5.938	0.5	4.938	6.75	0.5	5.188	6.188	0.625
4.5	6	0.5	4.75	6	0.5	4.969	6.375	0.5	5.188	6.188	0.75
4.5	6	0.563	4.75	6	0.563	4.984	6.234	0.5	5.188	6.25	0.5
4.5	6	0.625	4.75	6	0.625	5	6	0.375	5.188	6.25	0.625
4.5	6	0.75	4.75	6	0.75	5	6	0.438	5.188	6.375	0.5
4.5	6	0.906	4.75	6	0.906	5	6	0.5	5.188	6.438	0.5
4.5	6.125	0.5	4.75	6.125	0.5	5	6	0.563	5.188	6.438	0.625
4.5	6.25	0.5	4.75	6.25	0.5	5	6	0.625	5.188	6.5	0.5
4.5	6.25	0.625	4.75	6.25	0.625	5	6	0.688	5.188	6.5	0.625
4.5	6.25	0.969	4.75	6.25	0.75	5	6	0.719	5.188	6.625	0.5
4.5	6.375	0.5	4.75	6.25	0.906	5	6	0.75	5.188	6.75	0.5
4.5	6.375	0.625	4.75	6.375	0.5	5	6	0.906	5.188	7	0.5
4.5	6.5	0.5	4.75	6.5	0.625	5	6	0.969	5.188	7	0.75
4.516	5.516	0.75	4.813	5.813	0.5	5	6.063	0.5	5.203	6.313	0.5
4.531	5.531	0.5	4.813	5.813	0.75	5	6.125	0.5	5.25	6.25	0.5
4.563	5.563	0.625	4.813	5.875	0.5	5	6.125	0.563	5.25	6.25	0.625
4.563	5.563	0.75	4.813	5.875	0.625	5	6.219	0.5	5.25	6.25	0.75
4.563	5.625	0.5	4.813	5.905	0.563	5	6.25	0.5	5.25	6.313	0.5
4.563	5.688	0.5	4.813	5.938	0.5	5	6.25	0.563	5.25	6.375	0.5
4.563	5.75	0.5	4.813	6	0.5	5	6.25	0.625	5.25	6.438	0.5
4.563	5.75	0.563	4.813	6.125	0.5	5	6.25	0.75	5.25	6.5	0.5
4.563	5.75	0.625	4.813	6.25	0.5	5	6.25	0.906	5.25	6.5	0.625
4.563	5.813	0.5	4.813	6.313	0.5	5	6.25	0.969	5.25	6.5	0.719
4.563	5.875	0.5	4.813	6.375	0.625	5	6.313	0.781	5.25	6.5	0.75
4.563	5.875	0.563	4.875	5.875	0.5	5	6.375	0.5	5.25	6.5	0.969
4.563	6	0.5	4.875	5.875	0.625	5	6.375	0.625	5.25	6.563	0.75
4.563	6.063	0.5	4.875	5.875	0.75	5	6.375	0.719	5.25	6.625	0.5
4.563	6.125	0.5	4.875	5.938	0.5	5	6.375	0.75	5.25	6.625	0.625
4.563	6.25	0.5	4.875	6	0.5	5	6.438	0.5	5.25	6.75	0.5
4.563	6.375	0.5	4.875	6	0.625	5	6.5	0.5	5.25	6.75	0.625
4.625	5.625	0.5	4.875	6	0.906	5	6.5	0.563	5.25	6.75	0.688
4.625	5.625	0.563	4.875	6.063	0.5	5	6.5	0.625	5.25	6.75	0.75
4.625	5.625	0.625	4.875	6.125	0.5	5	6.5	0.75	5.25	6.75	0.906
4.625	5.625	0.75	4.875	6.125	0.625	5	6.5	0.906	5.25	6.875	0.5
4.625	5.75	0.5	4.875	6.125	0.906	5	6.563	0.5	5.25	7	0.5
4.625	5.75	0.563	4.875	6.25	0.5	5	6.625	0.5	5.25	7.125	0.5
4.625	5.75	0.906	4.875	6.25	0.563	5	6.75	0.5	5.25	7.125	0.906
4.625	5.875	0.5	4.875	6.25	0.625	5	6.75	0.625	5.25	7.25	0.625
4.625	6	0.5	4.875	6.25	0.859	5	6.875	0.5	5.28	6.28	0.5
4.625	6	0.625	4.875	6.375	0.5	5	7	0.5	5.297	6.297	0.5

Please use size tables in section *Size options of heavy industrial seals on page 200* to determine your required seal type and size.

Seals for heavy industrial applications – inch dimensions

d₁ 5.313–6.25 in

Principal dimensions

d ₁	D	B	d ₁	D	B	d ₁	D	B	d ₁	D	B
5.313	6.297	0.5	5.5	7	0.5	5.75	7.25	0.5	6	7.125	0.625
5.313	6.313	0.5	5.5	7	0.625	5.75	7.25	0.625	6	7.125	0.719
5.313	6.313	0.75	5.5	7	0.75	5.75	7.25	0.75	6	7.125	0.906
5.313	6.375	0.5	5.5	7	0.828	5.75	7.25	0.906	6	7.188	0.75
5.313	6.5	0.5	5.5	7	0.969	5.75	7.375	0.5	6	7.203	0.75
5.313	6.563	0.625	5.5	7.125	0.5	5.75	7.375	0.625	6	7.25	0.5
5.313	6.578	0.5	5.5	7.188	0.625	5.75	7.5	0.5	6	7.25	0.625
5.313	6.625	0.5	5.5	7.25	0.5	5.75	7.5	0.563	6	7.25	0.969
5.313	6.625	0.719	5.5	7.25	0.625	5.75	7.5	0.75	6	7.375	0.5
5.313	6.688	0.625	5.5	7.5	0.5	5.78	7.031	0.625	6	7.375	0.75
5.313	6.75	0.5	5.563	6.563	0.5	5.813	6.813	0.5	6	7.453	0.734
5.313	6.813	0.5	5.563	6.563	0.75	5.813	6.813	0.75	6	7.5	0.5
5.313	6.875	0.5	5.563	6.625	0.5	5.813	6.875	0.5	6	7.5	0.625
5.313	6.875	0.625	5.563	6.75	0.5	5.813	6.938	0.5	6	7.5	0.719
5.313	6.938	0.5	5.563	6.75	0.625	5.813	7	0.5	6	7.5	0.75
5.313	7.25	0.5	5.563	6.875	0.906	5.813	7	0.563	6	7.5	0.906
5.375	6.375	0.5	5.563	7.125	0.625	5.813	7.125	0.625	6	7.563	0.781
5.375	6.375	0.75	5.563	7.25	0.5	5.813	7.25	0.5	6	7.625	0.5
5.375	6.5	0.5	5.563	7.375	0.5	5.813	7.25	0.625	6	7.625	0.563
5.375	6.5	0.563	5.563	7.5	0.625	5.813	7.375	0.5	6	7.625	0.625
5.375	6.5	0.625	5.625	6.625	0.5	5.813	7.5	0.5	6	7.625	0.75
5.375	6.5	0.75	5.625	6.625	0.625	5.875	6.875	0.438	6	8	0.5
5.375	6.625	0.5	5.625	6.625	0.75	5.875	6.875	0.5	6.031	7.313	0.5
5.375	6.625	0.563	5.625	6.75	0.5	5.875	6.875	0.75	6.063	7.0469	0.75
5.375	6.625	0.625	5.625	6.75	0.625	5.875	6.875	0.969	6.063	7.063	0.438
5.375	6.688	0.563	5.625	6.75	0.906	5.875	7	0.5	6.063	7.063	0.5
5.375	6.75	0.5	5.625	6.875	0.5	5.875	7.125	0.453	6.063	7.063	0.75
5.375	6.75	0.625	5.625	6.875	0.563	5.875	7.125	0.5	6.063	7.125	0.5
5.375	6.875	0.5	5.625	6.875	0.625	5.875	7.125	0.563	6.063	7.313	0.625
5.375	6.875	0.625	5.625	6.875	0.719	5.875	7.125	0.625	6.063	7.375	0.5
5.375	6.875	0.75	5.625	6.875	0.75	5.875	7.125	0.75	6.063	7.5	0.5
5.375	7	0.625	5.625	6.875	0.969	5.875	7.125	0.828	6.063	7.5	0.75
5.375	7.125	0.625	5.625	7	0.5	5.875	7.141	0.563	6.063	7.5	0.906
5.422	6.625	0.5	5.625	7	0.75	5.875	7.25	0.5	6.063	7.563	0.75
5.438	6.438	0.5	5.625	7.125	0.5	5.875	7.25	0.906	6.063	7.688	0.5
5.438	6.438	0.75	5.625	7.125	0.75	5.875	7.375	0.5	6.125	7.125	0.5
5.438	6.5	0.5	5.625	7.25	0.5	5.875	7.375	0.563	6.125	7.125	0.563
5.438	6.625	0.5	5.625	7.25	0.625	5.875	7.375	0.625	6.125	7.125	0.625
5.438	6.688	0.625	5.625	7.375	0.5	5.875	7.375	0.75	6.125	7.125	0.75
5.438	6.719	0.625	5.625	7.5	0.5	5.875	7.5	0.5	6.125	7.188	0.5
5.438	6.75	0.5	5.625	7.5	0.719	5.875	7.5	0.563	6.125	7.25	0.5
5.438	6.75	0.563	5.688	6.688	0.75	5.875	7.5	0.625	6.125	7.25	0.625
5.438	6.75	0.625	5.688	6.75	0.5	5.875	7.5	0.75	6.125	7.375	0.5
5.438	6.75	0.75	5.688	6.75	0.625	5.906	6.906	0.5	6.125	7.375	0.625
5.438	6.75	0.781	5.688	6.875	0.625	5.906	6.906	0.75	6.125	7.5	0.5
5.438	6.875	0.5	5.688	6.938	0.5	5.906	7.203	0.547	6.125	7.5	0.75
5.438	6.875	0.75	5.688	6.938	0.625	5.906	7.219	0.781	6.125	7.5	0.906
5.438	6.875	0.969	5.688	7	0.5	5.906	7.406	0.5	6.125	7.5	0.969
5.438	6.938	0.625	5.688	7	0.625	5.906	7.906	0.5	6.125	7.625	0.5
5.438	6.938	0.75	5.688	7.188	0.5	5.938	6.938	0.5	6.125	7.625	0.625
5.438	7	0.5	5.688	7.375	0.5	5.938	6.938	0.75	6.125	7.625	0.688
5.438	7.125	0.5	5.688	7.375	0.625	5.938	7	0.5	6.125	7.625	0.75
5.438	7.25	0.5	5.688	7.5	0.5	5.938	7	0.563	6.188	7.188	0.5
5.469	6.469	0.5	5.688	7.5	0.906	5.938	7	0.625	6.188	7.188	0.75
5.5	6.5	0.5	5.75	6.75	0.438	5.938	7.125	0.5	6.188	7.25	0.5
5.5	6.5	0.625	5.75	6.75	0.5	5.938	7.188	0.5	6.188	7.25	0.734
5.5	6.5	0.719	5.75	6.75	0.563	5.938	7.188	0.625	6.188	7.438	0.5
5.5	6.5	0.75	5.75	6.75	0.625	5.938	7.25	0.5	6.188	7.438	0.625
5.5	6.5	0.906	5.75	6.75	0.75	5.938	7.25	0.625	6.188	7.5	0.5
5.5	6.563	0.5	5.75	6.75	0.906	5.938	7.375	0.5	6.188	7.5	0.625
5.5	6.625	0.5	5.75	6.875	0.5	5.938	7.438	0.5	6.188	7.688	0.75
5.5	6.625	0.563	5.75	6.875	0.563	5.938	7.438	0.75	6.219	7.75	0.625
5.5	6.625	0.625	5.75	6.875	0.625	5.938	7.5	0.5	6.219	8.063	0.75
5.5	6.688	0.625	5.75	6.938	0.5	5.938	7.5	0.906	6.25	7.25	0.5
5.5	6.75	0.5	5.75	6.969	0.5	5.938	7.625	0.5	6.25	7.25	0.625
5.5	6.75	0.563	5.75	7	0.5	5.938	7.688	0.625	6.25	7.25	0.75
5.5	6.75	0.625	5.75	7	0.563	6	7	0.438	6.25	7.25	0.906
5.5	6.75	0.688	5.75	7	0.626	6	7	0.5	6.25	7.25	0.969
5.5	6.75	0.719	5.75	7	0.844	6	7	0.563	6.25	7.375	0.5
5.5	6.75	0.75	5.75	7	0.906	6	7	0.625	6.25	7.375	0.563
5.5	6.75	0.906	5.75	7	0.969	6	7	0.75	6.25	7.375	0.625
5.5	6.766	0.5	5.75	7.125	0.5	6	7	0.969	6.25	7.5	0.5
5.5	6.875	0.5	5.75	7.125	0.563	6	7.125	0.5	6.25	7.5	0.563
5.5	6.875	0.563	5.75	7.203	0.734	6	7.125	0.563	6.25	7.5	0.625

Please use size tables in section Size options of heavy industrial seals on page 200 to determine your required seal type and size.

Radial shaft seals | Seals for heavy industrial applications – inch dimensions

d₁ 6.25–7.75 in

Principal dimensions

d ₁	D	B									
6.25	7.5	0.75	6.625	8	0.5	6.938	8.125	0.625	7.25	8.75	0.875
6.25	7.625	0.5	6.625	8	0.625	6.938	8.125	0.75	7.25	9	0.5
6.25	7.688	0.625	6.625	8	0.75	6.938	8.375	0.625	7.281	8.281	0.5
6.25	7.75	0.5	6.625	8	0.844	6.938	8.438	0.5	7.281	8.859	0.625
6.25	7.75	0.625	6.625	8.125	0.5	6.938	8.5	0.625	7.312	8.375	0.625
6.25	7.75	0.719	6.625	8.125	0.625	7	8	0.5	7.312	8.438	0.563
6.25	7.75	0.75	6.625	8.125	0.688	7	8	0.625	7.375	8.375	0.5
6.25	7.75	0.906	6.625	8.125	0.75	7	8	0.75	7.375	8.375	0.625
6.25	7.875	0.625	6.625	8.125	0.969	7	8	0.844	7.375	8.375	0.75
6.28	7.531	0.625	6.625	8.25	0.625	7	8.125	0.625	7.375	8.5	0.5
6.297	7.297	0.5	6.625	8.25	0.75	7	8.125	0.75	7.375	8.5	0.625
6.297	7.547	0.625	6.625	8.375	0.5	7	8.141	0.75	7.375	8.625	0.625
6.297	7.874	0.531	6.625	8.375	0.625	7	8.188	0.625	7.375	8.625	0.75
6.313	7.313	0.5	6.625	8.5	0.625	7	8.25	0.5	7.375	8.75	0.625
6.313	7.313	0.625	6.688	7.688	0.5	7	8.25	0.625	7.375	8.875	0.625
6.313	7.313	0.75	6.688	7.75	0.5	7	8.25	0.75	7.375	8.875	0.75
6.375	7.375	0.5	6.688	7.75	0.625	7	8.375	0.5	7.375	9	0.625
6.375	7.375	0.75	6.688	7.938	0.5	7	8.375	0.625	7.375	9.125	0.625
6.375	7.5	0.5	6.688	7.938	0.625	7	8.375	0.688	7.375	9.125	0.75
6.375	7.5	0.625	6.703	7.953	0.5	7	8.375	0.75	7.375	9.25	0.625
6.375	7.5	0.75	6.75	7.75	0.438	7	8.5	0.5	7.438	8.438	0.5
6.375	7.5	0.969	6.75	7.75	0.5	7	8.5	0.625	7.438	8.5	0.5
6.375	7.625	0.5	6.75	7.75	0.625	7	8.5	0.75	7.438	8.5	0.625
6.375	7.625	0.625	6.75	7.75	0.75	7	8.5	0.875	7.438	8.688	0.625
6.375	7.688	0.625	6.75	7.875	0.5	7	8.5	0.969	7.438	8.938	0.75
6.375	7.75	0.5	6.75	7.875	0.625	7	8.563	0.781	7.469	8.469	0.688
6.375	7.75	0.625	6.75	8	0.5	7	8.75	0.5	7.5	8.5	0.5
6.375	7.875	0.5	6.75	8	0.625	7	8.75	0.625	7.5	8.5	0.625
6.375	7.875	0.625	6.75	8	0.719	7	8.75	0.813	7.5	8.5	0.688
6.375	7.875	0.75	6.75	8	0.75	7	9	0.813	7.5	8.5	0.75
6.438	7.438	0.5	6.75	8	0.844	7.063	8.063	0.5	7.5	8.563	0.5
6.438	7.438	0.75	6.75	8.125	0.625	7.063	8.063	0.625	7.5	8.625	0.625
6.438	7.5	0.5	6.75	8.125	0.75	7.063	8.563	0.5	7.5	8.75	0.5
6.438	7.5	0.625	6.75	8.25	0.5	7.063	8.563	0.75	7.5	8.75	0.625
6.438	7.5	0.906	6.75	8.25	0.563	7.063	8.625	0.625	7.5	8.875	0.5
6.438	7.688	0.625	6.75	8.25	0.625	7.078	8.563	0.5	7.5	8.875	0.625
6.438	7.688	0.75	6.75	8.25	0.75	7.078	8.578	0.625	7.5	9	0.5
6.438	7.75	0.75	6.75	8.25	0.781	7.125	8.125	0.5	7.5	9	0.563
6.438	7.938	0.625	6.75	8.375	0.625	7.125	8.125	0.625	7.5	9	0.625
6.438	7.938	0.75	6.75	8.5	0.5	7.125	8.25	0.469	7.5	9	0.719
6.438	7.969	0.75	6.75	8.5	0.625	7.125	8.25	0.5	7.5	9	0.75
6.469	7.469	0.5	6.75	8.625	0.625	7.125	8.25	0.625	7.5	9	0.844
6.5	7.5	0.438	6.75	8.75	0.625	7.125	8.25	0.75	7.5	9	0.938
6.5	7.5	0.5	6.75	8.75	0.875	7.125	8.25	0.969	7.5	9.125	0.625
6.5	7.5	0.563	6.781	8.031	0.625	7.125	8.375	0.5	7.5	9.125	0.75
6.5	7.5	0.625	6.813	8.313	0.75	7.125	8.375	0.625	7.5	9.25	0.625
6.5	7.5	0.75	6.875	7.875	0.438	7.125	8.5	0.5	7.5	9.25	0.75
6.5	7.5	0.781	6.875	7.875	0.5	7.125	8.5	0.625	7.5	9.25	0.938
6.5	7.5	0.844	6.875	7.875	0.625	7.125	8.625	0.5	7.531	8.781	0.625
6.5	7.5	0.906	6.875	7.875	0.75	7.125	8.625	0.625	7.563	9.063	0.625
6.5	7.625	0.625	6.875	7.875	0.969	7.125	8.625	0.75	7.563	9.063	0.75
6.5	7.688	0.625	6.875	8	0.438	7.125	8.75	0.625	7.625	8.625	0.5
6.5	7.75	0.5	6.875	8	0.5	7.125	8.75	0.75	7.625	8.625	0.625
6.5	7.75	0.625	6.875	8	0.625	7.188	8.188	0.5	7.625	8.75	0.625
6.5	7.75	0.75	6.875	8.063	0.563	7.188	8.438	0.5	7.625	8.875	0.625
6.5	7.875	0.625	6.875	8.125	0.5	7.188	8.438	0.625	7.625	8.938	0.781
6.5	7.875	0.75	6.875	8.125	0.563	7.188	8.5	0.5	7.625	9	0.625
6.5	7.938	0.625	6.875	8.125	0.625	7.188	8.563	0.625	7.625	9	0.75
6.5	8	0.5	6.875	8.25	0.625	7.188	8.641	0.625	7.625	9.125	0.5
6.5	8	0.563	6.875	8.25	0.75	7.188	8.688	0.625	7.625	9.125	0.625
6.5	8	0.625	6.875	8.375	0.5	7.25	8.25	0.438	7.625	9.125	0.75
6.5	8	0.75	6.875	8.375	0.625	7.25	8.25	0.5	7.625	9.188	0.625
6.5	8	0.844	6.875	8.375	0.75	7.25	8.25	0.625	7.625	9.25	0.625
6.5	8.063	0.625	6.875	8.5	0.5	7.25	8.25	0.75	7.688	8.688	0.5
6.5	8.125	0.625	6.875	8.5	0.625	7.25	8.375	0.625	7.688	9.188	0.75
6.563	7.563	0.5	6.875	8.5	0.75	7.25	8.5	0.5	7.688	9.25	0.625
6.625	7.625	0.5	6.875	8.75	0.625	7.25	8.5	0.625	7.75	8.75	0.438
6.625	7.625	0.625	6.891	7.875	0.5	7.25	8.5	0.75	7.75	8.75	0.5
6.625	7.625	0.75	6.891	7.891	0.5	7.25	8.625	0.625	7.75	8.75	0.625
6.625	7.75	0.625	6.891	8.375	0.75	7.25	8.625	0.75	7.75	8.813	0.5
6.625	7.875	0.5	6.906	8.156	0.625	7.25	8.703	0.609	7.75	8.875	0.625
6.625	7.875	0.625	6.938	7.938	0.5	7.25	8.75	0.5	7.75	8.875	0.75
6.625	7.938	0.5	6.938	8	0.625	7.25	8.75	0.625	7.75	8.938	0.625
6.625	7.938	0.625	6.938	8.063	0.5	7.25	8.75	0.75	7.75	9	0.5

Please use size tables in section Size options of heavy industrial seals on page 200 to determine your required seal type and size.

Seals for heavy industrial applications – inch dimensions

d₁ 7.75–9 in

Principal dimensions

d ₁	D	B	d ₁	D	B	d ₁	D	B	d ₁	D	B
7.75	9	0.625	8	10	0.813	8.438	9.688	0.625	8.75	10	1
7.75	9	0.75	8	10	1	8.438	9.938	0.5	8.75	10.25	0.5
7.75	9.063	0.781	8.063	9.313	0.5	8.438	9.938	0.75	8.75	10.25	0.563
7.75	9.125	0.625	8.063	9.313	0.625	8.438	10	0.625	8.75	10.25	0.625
7.75	9.25	0.5	8.063	9.563	0.5	8.438	10	1	8.75	10.25	0.656
7.75	9.25	0.625	8.063	9.563	0.75	8.469	9.5	0.5	8.75	10.25	0.688
7.75	9.25	0.75	8.063	10	1	8.469	9.969	0.5	8.75	10.25	0.75
7.75	9.25	0.844	8.063	10.063	1	8.469	9.969	0.75	8.75	10.313	0.625
7.75	9.25	0.875	8.125	9.125	0.438	8.5	9.5	0.5	8.75	10.375	0.75
7.75	9.25	0.969	8.125	9.125	0.5	8.5	9.5	0.625	8.75	10.5	0.688
7.75	9.375	0.625	8.125	9.188	0.5	8.5	9.5	0.969	8.75	10.5	0.75
7.813	8.813	0.438	8.125	9.25	0.625	8.5	9.75	0.5	8.75	10.5	0.813
7.813	8.813	0.5	8.125	9.375	0.625	8.5	9.75	0.563	8.75	10.625	0.75
7.813	9	0.625	8.125	9.625	0.5	8.5	9.75	0.625	8.75	10.75	0.625
7.813	9.063	0.625	8.125	9.625	0.75	8.5	9.75	0.75	8.75	10.75	0.75
7.813	9.25	0.5	8.125	10	0.75	8.5	9.875	0.75	8.75	10.75	0.813
7.813	9.313	0.75	8.125	10	1	8.5	10	0.5	8.75	10.75	1
7.844	8.844	0.5	8.125	10.125	0.625	8.5	10	0.625	8.75	10.875	0.813
7.875	8.875	0.5	8.125	10.125	0.688	8.5	10	0.688	8.78	10.781	0.75
7.875	8.875	0.625	8.125	10.125	0.75	8.5	10	0.75	8.813	9.813	0.5
7.875	8.875	0.75	8.125	10.125	0.875	8.5	10	1	8.813	10.313	0.5
7.875	8.938	0.5	8.188	9.188	0.5	8.5	10	1.25	8.813	10.313	0.75
7.875	9	0.438	8.188	9.313	0.5	8.5	10.063	0.75	8.859	9.859	0.5
7.875	9	0.5	8.188	9.688	0.5	8.5	10.25	0.75	8.859	10.359	0.75
7.875	9	0.625	8.25	9.25	0.438	8.5	10.375	0.625	8.859	11.016	0.906
7.875	9.125	0.5	8.25	9.25	0.5	8.5	10.5	0.5	8.875	9.875	0.5
7.875	9.125	0.625	8.25	9.25	0.625	8.5	10.5	0.625	8.875	10.125	0.625
7.875	9.25	0.625	8.25	9.25	0.75	8.5	10.5	0.75	8.875	10.125	0.75
7.875	9.25	0.75	8.25	9.375	0.5	8.5	10.5	0.813	8.875	10.25	0.75
7.875	9.359	0.688	8.25	9.375	0.625	8.5	10.5	1	8.875	10.375	0.5
7.875	9.375	0.5	8.25	9.5	0.5	8.5	10.5	1.25	8.875	10.375	0.75
7.875	9.375	0.625	8.25	9.5	0.625	8.5	10.625	0.75	8.875	10.5	0.75
7.875	9.375	0.688	8.25	9.5	0.75	8.531	9.781	0.625	8.875	10.625	0.813
7.875	9.375	0.75	8.25	9.5	0.844	8.563	10.063	0.75	8.875	10.75	0.75
7.875	9.375	0.969	8.25	9.5	1.125	8.625	9.625	0.469	8.875	10.875	0.625
7.875	9.438	0.625	8.25	9.563	0.781	8.625	9.625	0.5	8.875	10.875	0.75
7.875	9.5	0.75	8.25	9.688	0.75	8.625	9.625	0.563	8.875	10.875	0.813
7.875	9.875	0.625	8.25	9.75	0.5	8.625	9.813	0.625	8.875	10.875	1
7.938	8.938	0.5	8.25	9.75	0.625	8.625	9.875	0.5	8.875	11	0.875
7.938	8.938	0.75	8.25	9.75	0.75	8.625	9.875	0.625	8.938	9.938	0.5
7.938	9	0.5	8.25	9.813	0.75	8.625	10	0.625	8.938	10.188	0.625
7.938	9.125	0.625	8.25	9.844	0.625	8.625	10	0.75	8.938	10.438	0.75
7.938	9.125	0.969	8.25	10	0.75	8.625	10.125	0.5	8.938	10.5	0.75
7.938	9.188	0.625	8.25	10.25	0.625	8.625	10.125	0.609	8.97	10.5	0.5
7.938	9.25	0.625	8.25	10.25	0.75	8.625	10.125	0.625	8.97	10.5	0.75
7.938	9.438	0.75	8.25	10.25	0.813	8.625	10.125	0.688	9	10	0.5
8	9	0.438	8.25	10.25	1	8.625	10.125	0.75	9	10.188	0.625
8	9	0.5	8.25	10.25	1.219	8.625	10.25	0.625	9	10.25	0.5
8	9	0.625	8.25	10.5	0.875	8.625	10.25	0.688	9	10.25	0.625
8	9	0.75	8.313	9.313	0.5	8.625	10.25	0.75	9	10.25	0.75
8	9	0.969	8.313	9.563	0.625	8.625	10.5	0.5	9	10.375	0.5
8	9.125	0.5	8.375	9.375	0.5	8.625	10.5	0.75	9	10.375	0.625
8	9.125	0.625	8.375	9.5	0.625	8.625	10.5	1	9	10.375	0.75
8	9.125	0.75	8.375	9.5	0.75	8.625	10.625	0.625	9	10.5	0.5
8	9.25	0.5	8.375	9.563	0.75	8.625	10.625	0.75	9	10.5	0.563
8	9.25	0.625	8.375	9.625	0.5	8.625	10.625	0.813	9	10.5	0.609
8	9.25	0.75	8.375	9.625	0.625	8.625	10.625	1	9	10.5	0.625
8	9.25	0.844	8.375	9.75	0.625	8.625	10.75	0.813	9	10.5	0.656
8	9.25	1	8.375	9.75	0.75	8.625	10.75	0.875	9	10.5	0.688
8	9.375	0.625	8.375	9.75	1.156	8.625	10.75	1	9	10.5	0.75
8	9.438	0.5	8.375	9.875	0.5	8.656	10.125	0.75	9	10.5	0.813
8	9.5	0.5	8.375	9.875	0.625	8.688	9.688	0.5	9	10.563	0.625
8	9.5	0.625	8.375	9.875	0.688	8.688	9.938	0.5	9	10.625	0.625
8	9.5	0.688	8.375	9.875	0.75	8.688	9.938	0.625	9	10.625	0.75
8	9.5	0.75	8.375	9.875	1.156	8.688	9.938	0.75	9	10.672	0.75
8	9.5	0.969	8.375	10	0.5	8.688	10.625	0.75	9	10.75	0.75
8	9.5	1.094	8.375	10	0.625	8.75	9.75	0.5	9	10.875	0.75
8	9.594	0.609	8.375	10.375	0.75	8.75	9.75	0.563	9	11	0.625
8	9.625	0.75	8.375	10.375	0.813	8.75	9.875	0.625	9	11	0.75
8	9.75	0.75	8.375	10.375	1	8.75	9.875	0.688	9	11	0.813
8	9.875	0.813	8.375	10.375	1.25	8.75	9.875	0.75	9	11	0.875
8	10	0.625	8.375	10.5	0.875	8.75	10	0.516	9	11	1
8	10	0.688	8.406	9.406	0.5	8.75	10	0.625	9	11	1.25
8	10	0.75	8.438	9.563	0.5	8.75	10	0.75	9	11.25	0.875

Please use size tables in section **Size options of heavy industrial seals** on page 200 to determine your required seal type and size.

Radial shaft seals | Seals for heavy industrial applications – inch dimensions

d₁ 9.063–10.75 in

Principal dimensions

d ₁	D	B									
9.063	10.063	0.5	9.5	10.75	0.5	9.875	11.875	0.75	10.25	11.75	0.75
9.063	10.5	0.75	9.5	10.75	0.563	9.875	11.875	0.969	10.25	11.813	0.703
9.063	10.563	0.75	9.5	10.75	0.625	9.875	12	0.875	10.25	11.813	0.781
9.063	10.625	0.625	9.5	10.875	0.75	9.938	10.938	0.5	10.25	12	0.625
9.063	10.75	0.75	9.5	10.938	0.75	9.938	11.188	0.625	10.25	12	0.75
9.063	11.063	0.75	9.5	11	0.5	9.938	11.438	0.563	10.25	12.25	0.625
9.094	10.406	0.781	9.5	11	0.625	9.938	11.438	0.75	10.25	12.25	0.75
9.125	10.125	0.5	9.5	11	0.688	9.938	11.5	0.625	10.25	12.25	0.813
9.125	10.375	0.625	9.5	11	0.75	9.938	11.5	0.75	10.25	12.25	1
9.125	10.5	0.625	9.5	11.125	0.625	9.938	11.938	0.625	10.25	12.5	0.75
9.125	10.625	0.563	9.5	11.25	0.625	9.938	11.938	0.75	10.25	12.5	0.813
9.125	10.625	0.625	9.5	11.25	0.75	9.938	12	0.75	10.266	11.813	0.547
9.125	10.625	0.688	9.5	11.375	0.625	9.938	12	1	10.313	11.938	0.813
9.125	10.625	0.75	9.5	11.438	0.625	9.938	12.125	1	10.375	11.625	0.625
9.125	10.625	1.25	9.5	11.5	0.5	10	11	0.5	10.375	11.875	0.5
9.125	10.75	0.625	9.5	11.5	0.578	10	11.25	0.5	10.375	11.875	0.75
9.125	10.75	0.75	9.5	11.5	0.625	10	11.25	0.563	10.375	12	0.75
9.125	10.797	0.703	9.5	11.5	0.688	10	11.25	0.625	10.375	12.25	0.75
9.125	11	0.75	9.5	11.5	0.75	10	11.25	0.688	10.375	12.5	0.875
9.125	11.125	0.625	9.5	11.5	0.813	10	11.25	0.75	10.438	11.688	0.813
9.125	11.125	0.75	9.5	11.5	1	10	11.25	1	10.438	11.938	0.625
9.125	11.125	0.813	9.5	11.5	1.25	10	11.313	0.781	10.438	11.938	0.75
9.125	11.125	1	9.563	10.563	0.5	10	11.375	0.5	10.438	12	0.625
9.125	11.125	1.25	9.563	10.813	0.625	10	11.375	0.563	10.438	12	0.75
9.156	10.656	0.75	9.563	11.063	0.625	10	11.375	0.75	10.438	12.438	0.75
9.188	10.375	0.75	9.625	10.625	0.5	10	11.438	0.75	10.438	12.438	0.875
9.188	10.688	0.75	9.625	10.875	0.5	10	11.5	0.563	10.438	12.5	1
9.25	10.25	0.5	9.625	10.875	0.625	10	11.5	0.625	10.5	11.5	0.5
9.25	10.5	0.5	9.625	10.875	0.75	10	11.5	0.688	10.5	11.75	0.5
9.25	10.5	0.625	9.625	11	0.75	10	11.5	0.75	10.5	11.75	0.625
9.25	10.5	0.75	9.625	11.125	0.5	10	11.5	1.063	10.5	11.75	0.75
9.25	10.625	0.75	9.625	11.125	0.625	10	11.625	0.75	10.5	11.75	0.875
9.25	10.75	0.5	9.625	11.125	0.75	10	11.641	0.75	10.5	11.906	0.766
9.25	10.75	0.625	9.625	11.625	0.75	10	11.75	0.563	10.5	12	0.5
9.25	10.75	0.656	9.625	11.625	0.813	10	11.75	0.625	10.5	12	0.625
9.25	10.75	0.688	9.625	11.625	1	10	11.75	0.75	10.5	12	0.688
9.25	10.75	0.75	9.688	10.875	0.625	10	11.875	0.563	10.5	12	0.75
9.25	10.813	0.625	9.688	11.125	0.75	10	11.875	0.813	10.5	12.125	0.625
9.25	10.828	0.625	9.688	11.188	0.75	10	12	0.625	10.5	12.125	0.75
9.25	10.875	0.75	9.75	10.75	0.5	10	12	0.688	10.5	12.25	0.75
9.25	11	0.625	9.75	11	0.5	10	12	0.703	10.5	12.5	0.5
9.25	11	0.75	9.75	11	0.625	10	12	0.75	10.5	12.5	0.625
9.25	11.25	0.563	9.75	11	0.75	10	12	0.813	10.5	12.5	0.75
9.25	11.25	0.625	9.75	11.125	0.563	10	12	0.875	10.5	12.5	0.813
9.25	11.25	0.688	9.75	11.125	0.625	10	12	1	10.5	12.5	0.875
9.25	11.25	0.75	9.75	11.125	0.75	10	12	1.25	10.5	12.5	1
9.25	11.25	0.813	9.75	11.25	0.625	10	12.25	0.813	10.5	12.625	1
9.25	11.25	1	9.75	11.25	0.688	10	12.25	0.875	10.5	13.375	0.75
9.25	11.375	0.875	9.75	11.25	0.75	10.063	11.688	0.75	10.531	12.031	0.625
9.25	11.5	0.875	9.75	11.25	1	10.063	11.813	0.781	10.563	12.563	0.75
9.313	10.625	0.781	9.75	11.375	0.75	10.125	11.375	0.625	10.625	11.813	0.625
9.313	11.125	0.688	9.75	11.5	0.75	10.125	11.5	0.625	10.625	11.875	0.625
9.313	11.313	1	9.75	11.75	0.625	10.125	11.5	0.75	10.625	12	0.75
9.375	10.375	0.5	9.75	11.75	0.688	10.125	11.625	0.5	10.625	12.125	0.75
9.375	10.625	0.5	9.75	11.75	0.75	10.125	11.625	0.688	10.625	12.188	0.625
9.375	10.625	0.625	9.75	11.75	1	10.125	11.625	0.75	10.625	12.25	0.75
9.375	10.875	0.75	9.75	12	0.875	10.125	11.75	0.688	10.625	12.375	0.75
9.375	11	0.625	9.813	11.125	0.781	10.125	11.75	0.75	10.625	12.375	0.781
9.375	11	0.75	9.813	11.406	0.625	10.125	12	0.75	10.625	12.5	0.75
9.375	11.25	0.75	9.844	10.844	0.5	10.125	12	1	10.625	12.5	0.969
9.375	11.375	0.625	9.844	11.094	0.625	10.188	11.188	0.5	10.625	12.5	1
9.375	11.375	0.75	9.844	11.156	0.781	10.188	11.438	0.625	10.625	12.625	0.75
9.375	11.375	0.813	9.844	11.25	0.688	10.188	12.25	1	10.625	12.625	0.813
9.375	11.375	1	9.844	11.344	0.75	10.236	11.484	0.625	10.625	13	0.75
9.438	10.438	0.5	9.844	11.344	0.813	10.236	11.736	0.625	10.688	12.25	0.625
9.438	10.625	0.625	9.844	11.469	0.75	10.236	11.736	0.75	10.688	12.5	0.625
9.438	10.625	0.75	9.844	11.844	0.75	10.236	11.969	0.75	10.688	12.688	0.75
9.438	10.688	0.625	9.859	10.859	0.5	10.236	12	0.813	10.75	11.75	0.5
9.438	10.75	0.625	9.875	10.875	0.5	10.25	11.25	0.5	10.75	12	0.563
9.438	10.813	0.703	9.875	11.375	0.625	10.25	11.5	0.5	10.75	12	0.594
9.438	10.938	0.75	9.875	11.375	0.75	10.25	11.5	0.625	10.75	12	0.625
9.438	11.5	0.875	9.875	11.438	0.625	10.25	11.688	0.625	10.75	12.063	0.781
9.438	11.5	1	9.875	11.5	0.75	10.25	11.75	0.625	10.75	12.25	0.563
9.5	10.5	0.5	9.875	11.75	0.875	10.25	11.75	0.688	10.75	12.25	0.594

Please use size tables in section *Size options of heavy industrial seals on page 200* to determine your required seal type and size.

Seals for heavy industrial applications – inch dimensions

d₁ 10.75–12.688 in

Principal dimensions

d ₁	D	B									
10.75	12.25	0.625	11.125	13.25	0.813	11.75	13.25	0.625	12.188	14	0.75
10.75	12.25	0.688	11.125	13.25	0.875	11.75	13.25	0.688	12.203	13.203	0.5
10.75	12.25	0.75	11.125	13.375	0.75	11.75	13.25	0.75	12.203	13.688	0.625
10.75	12.375	0.563	11.188	12.188	0.5	11.75	13.25	0.813	12.203	13.781	0.688
10.75	12.375	0.625	11.188	12.5	0.75	11.75	13.5	0.75	12.25	13.5	0.625
10.75	12.5	0.563	11.188	13	0.75	11.75	13.5	0.813	12.25	13.5	0.75
10.75	12.5	0.625	11.25	12.5	0.625	11.75	13.563	0.5	12.25	13.75	0.625
10.75	12.5	0.875	11.25	12.531	0.625	11.75	13.75	0.625	12.25	13.75	0.688
10.75	12.625	0.75	11.25	12.75	0.625	11.75	13.75	0.75	12.25	13.75	0.75
10.75	12.688	0.578	11.25	12.75	0.688	11.75	13.75	0.813	12.25	13.75	0.813
10.75	12.75	0.563	11.25	12.75	0.75	11.75	13.75	1	12.25	13.813	0.625
10.75	12.75	0.625	11.25	13.25	0.625	11.75	14	1	12.25	13.813	0.719
10.75	12.75	0.75	11.25	13.25	0.688	11.75	14.125	1	12.25	13.875	0.625
10.75	12.75	0.813	11.25	13.25	0.813	11.813	12.813	0.5	12.25	14	0.625
10.75	12.75	0.875	11.25	13.25	1	11.813	13.063	0.625	12.25	14	0.688
10.75	12.75	1	11.25	13.5	0.875	11.813	13.313	0.75	12.25	14	0.75
10.75	13	0.813	11.25	13.5	1	11.813	13.531	0.781	12.25	14	0.875
10.75	13	0.875	11.313	12.813	0.75	11.813	13.563	0.781	12.25	14.125	0.75
10.75	13.25	0.813	11.344	12.594	0.625	11.813	13.781	0.75	12.25	14.25	0.625
10.813	12.406	0.781	11.359	13.75	0.875	11.813	13.781	1	12.25	14.25	0.75
10.826	11.828	0.5	11.375	12.375	0.5	11.813	13.813	0.625	12.25	14.25	0.813
10.875	12.375	0.688	11.375	12.625	0.625	11.813	13.813	0.75	12.25	14.25	1
10.875	12.375	0.75	11.375	12.875	0.625	11.813	13.813	0.813	12.25	14.25	1.25
10.875	12.5	0.688	11.375	12.875	0.75	11.813	14	0.75	12.281	13.75	0.688
10.875	12.5	1	11.375	13	0.625	11.875	12.875	0.5	12.313	13.938	0.75
10.875	12.625	0.75	11.375	13	0.688	11.875	13.375	0.625	12.375	13.375	0.5
10.875	12.875	0.5	11.375	13	0.75	11.875	13.375	0.75	12.375	13.688	0.781
10.875	12.875	0.578	11.375	13.375	0.813	11.875	13.438	0.625	12.375	13.875	0.625
10.875	12.875	0.813	11.375	13.5	1.25	11.906	13.156	0.625	12.375	13.875	0.75
10.938	12.188	0.813	11.375	13.5	1.25	11.938	13.438	0.625	12.375	14	0.688
10.938	12.438	0.625	11.422	12.922	0.75	11.938	13.938	0.625	12.375	14	0.75
10.938	12.5	0.625	11.438	13	0.688	11.938	13.938	0.75	12.375	14.125	0.813
10.938	12.938	0.75	11.438	13.75	0.625	11.938	13.938	0.813	12.375	14.375	0.688
11	12	0.5	11.5	12.5	0.5	11.938	13.938	0.813	12.375	14.375	0.688
11	12	0.625	11.5	12.75	0.5	12	13	0.5	12.375	14.375	1
11	12.25	0.563	11.5	12.75	0.625	12	13.25	0.625	12.375	14.5	0.813
11	12.25	0.609	11.5	12.875	0.688	12	13.25	0.75	12.375	14.5	0.875
11	12.25	0.625	11.5	12.875	0.75	12	13.313	0.781	12.406	13.906	0.75
11	12.25	0.688	11.5	13	0.5	12	13.5	0.625	12.438	14	0.75
11	12.313	0.781	11.5	13	0.625	12	13.5	0.688	12.438	14.375	0.813
11	12.375	0.75	11.5	13	0.688	12	13.5	0.75	12.438	14.438	0.813
11	12.5	0.5	11.5	13	0.703	12	13.5	0.813	12.5	13.5	0.5
11	12.5	0.625	11.5	13	0.75	12	13.625	0.625	12.5	13.75	0.625
11	12.5	0.688	11.5	13	0.813	12	13.625	0.688	12.5	13.75	0.75
11	12.5	0.75	11.5	13	1.25	12	13.625	0.75	12.5	13.813	0.781
11	12.563	0.813	11.5	13.125	0.813	12	13.75	0.688	12.5	13.906	0.75
11	12.594	0.781	11.5	13.25	0.75	12	13.75	0.75	12.5	14	0.625
11	12.625	0.625	11.5	13.25	0.813	12	13.875	0.5	12.5	14	0.688
11	12.625	0.75	11.5	13.375	0.75	12	13.938	0.813	12.5	14	0.75
11	12.719	0.781	11.5	13.5	0.5	12	14	0.625	12.5	14	0.813
11	12.75	0.75	11.5	13.5	0.625	12	14	0.688	12.5	14.063	0.625
11	12.813	0.625	11.5	13.5	0.75	12	14	0.75	12.5	14.063	0.75
11	12.875	0.813	11.5	13.5	0.813	12	14	0.813	12.5	14.25	0.75
11	13	0.5	11.5	13.5	0.906	12	14	0.938	12.5	14.375	0.75
11	13	0.625	11.5	13.5	1	12	14	1	12.5	14.5	0.75
11	13	0.688	11.5	13.5	1.25	12	14	1.25	12.5	14.5	0.813
11	13	0.75	11.5	13.672	0.688	12	14.188	1	12.5	14.5	0.906
11	13	0.813	11.563	13.063	0.75	12	14.25	1	12.5	14.5	1
11	13	0.938	11.625	12.625	0.5	12	14.359	0.75	12.5	14.5	1.25
11	13	1	11.625	13	0.75	12	14.75	0.813	12.5	14.75	1
11	13.25	1	11.625	13.125	0.75	12	14.75	0.875	12.5	15	0.813
11.031	12.031	0.5	11.625	13.25	0.75	12.063	13.313	0.75	12.563	14.063	0.75
11.063	12.25	0.75	11.625	13.375	0.781	12.063	13.563	0.75	12.625	13.875	0.625
11.063	12.313	0.625	11.625	13.625	0.813	12.063	13.625	0.75	12.625	14	0.75
11.063	12.5	0.75	11.625	13.625	1	12.125	13.125	0.5	12.625	14.125	0.688
11.063	12.75	0.75	11.688	13	0.75	12.125	13.375	0.75	12.625	14.125	0.75
11.063	13	0.75	11.688	13.188	0.625	12.125	13.625	0.75	12.625	14.125	1
11.125	12.375	0.625	11.688	13.188	0.75	12.125	13.875	0.688	12.625	14.5	0.688
11.125	12.5	0.75	11.688	13.25	0.625	12.125	13.875	0.75	12.625	14.5	0.875
11.125	12.75	1	11.688	13.75	0.75	12.125	14	0.875	12.625	14.625	0.75
11.125	13	0.688	11.75	12.75	0.5	12.125	14	1	12.625	14.625	0.875
11.125	13	0.75	11.75	13	0.75	12.125	14.125	0.75	12.625	14.625	1
11.125	13	1	11.75	13	0.813	12.188	13.438	0.625	12.688	14.25	0.75
11.125	13.125	0.813	11.75	13.063	0.781	12.188	13.688	0.625	12.688	14.688	0.813

Please use size tables in section Size options of heavy industrial seals on page 200 to determine your required seal type and size.

Radial shaft seals | Seals for heavy industrial applications – inch dimensions

d₁ 12.688-15 in

Principal dimensions

d ₁	D	B									
12.688	14.75	0.813	13.25	15.125	0.875	13.938	15.438	0.75	14.484	16.313	0.563
12.688	14.75	1	13.25	15.25	0.688	13.938	15.5	0.688	14.5	15.5	0.5
12.75	13.75	0.5	13.25	15.25	0.75	13.938	15.5	0.75	14.5	15.75	0.625
12.75	14	0.5	13.25	15.25	0.813	13.938	16	0.688	14.5	15.75	0.75
12.75	14	0.75	13.25	15.25	1	13.938	16	0.875	14.5	16	0.563
12.75	14.25	0.625	13.25	15.375	1	13.969	15.469	0.75	14.5	16	0.625
12.75	14.25	0.688	13.25	15.5	1	14	15	0.5	14.5	16	0.688
12.75	14.25	0.75	13.25	16	0.875	14	15.25	0.75	14.5	16	0.75
12.75	14.25	0.813	13.313	15.313	0.813	14	15.313	0.781	14.5	16	0.813
12.75	14.5	0.75	13.375	14.375	0.5	14	15.375	0.531	14.5	16.25	0.625
12.75	14.688	0.813	13.375	14.625	0.5	14	15.5	0.625	14.5	16.25	0.75
12.75	14.75	0.688	13.375	14.625	0.625	14	15.5	0.688	14.5	16.375	0.813
12.75	14.75	0.75	13.375	14.875	0.625	14	15.5	0.75	14.5	16.5	0.625
12.75	14.75	0.813	13.375	14.875	0.75	14	15.5	0.781	14.5	16.5	0.75
12.75	14.75	1	13.375	15	0.75	14	15.5	1	14.5	16.5	0.813
12.75	15	0.813	13.375	15.375	0.813	14	15.563	0.75	14.563	16	0.625
12.75	15	0.875	13.375	15.375	0.875	14	15.625	0.625	14.563	16.313	0.75
12.75	15.25	0.875	13.469	14.469	0.5	14	15.625	0.75	14.563	16.313	0.781
12.75	15.5	0.875	13.5	14.5	0.5	14	15.625	0.813	14.625	15.625	0.5
12.813	14.75	0.891	13.5	15	0.625	14	15.75	0.5	14.625	16	0.625
12.813	14.813	0.75	13.5	15	0.688	14	15.75	0.688	14.625	16.125	0.75
12.875	13.875	0.5	13.5	15	0.75	14	15.75	0.75	14.625	16.25	0.688
12.875	14.375	0.75	13.5	15.25	0.75	14	15.75	0.813	14.625	16.25	0.75
12.875	14.75	0.813	13.5	15.313	0.625	14	15.75	0.875	14.625	16.25	0.875
12.875	14.75	1	13.5	15.375	0.75	14	16	0.625	14.625	16.75	0.813
12.875	14.875	0.75	13.5	15.5	0.688	14	16	0.75	14.625	16.75	1
12.875	15	0.75	13.5	15.5	0.75	14	16	0.813	14.688	15.688	0.5
12.875	15	0.828	13.5	15.5	0.813	14	16	1	14.688	16.188	0.625
12.875	15.5	0.875	13.5	15.5	0.875	14	16.25	0.813	14.688	16.188	0.75
12.906	14.906	0.75	13.5	15.5	1	14	16.25	1	14.688	16.688	0.813
12.938	14.25	0.625	13.5	15.75	0.813	14	16.5	0.813	14.75	16.125	0.688
13	14	0.5	13.5	15.75	0.875	14	16.5	1	14.75	16.125	0.75
13	14.25	0.625	13.5	15.75	1	14	16.625	0.625	14.75	16.25	0.625
13	14.25	0.688	13.5	16.5	1	14.016	15.5	0.688	14.75	16.25	0.688
13	14.313	0.781	13.563	15.063	0.75	14.063	16.063	0.813	14.75	16.25	0.75
13	14.5	0.625	13.578	14.578	0.5	14.094	15.5	0.75	14.75	16.5	0.688
13	14.5	0.688	13.578	15.031	0.75	14.125	15.125	0.5	14.75	16.5	0.75
13	14.5	0.75	13.625	14.625	0.5	14.125	15.625	0.75	14.75	16.5	0.781
13	14.5	0.813	13.625	14.875	0.688	14.141	15.641	0.625	14.75	16.5	0.813
13	14.5	1	13.625	14.875	0.75	14.172	16.734	0.844	14.75	16.5	0.875
13	14.609	0.75	13.625	15.031	0.75	14.173	15.672	0.75	14.75	16.625	0.813
13	14.625	0.75	13.625	15.5	1	14.188	15.5	0.625	14.75	16.75	0.75
13	14.688	0.75	13.625	15.625	0.813	14.188	15.5	0.688	14.75	16.75	0.813
13	14.734	0.703	13.625	16	0.984	14.188	15.688	0.625	14.813	16.813	0.875
13	14.75	0.5	13.625	16.125	1.25	14.188	15.688	0.75	14.875	16.375	0.75
13	14.75	0.75	13.75	14.75	0.5	14.188	15.75	0.625	14.875	16.5	0.688
13	14.813	0.625	13.75	15	0.75	14.188	15.75	0.75	14.875	16.5	0.75
13	14.875	0.688	13.75	15.25	0.5	14.188	15.906	0.781	14.875	16.75	0.688
13	14.875	0.875	13.75	15.25	0.625	14.188	16	0.875	14.875	16.75	0.875
13	15	0.625	13.75	15.25	0.688	14.188	16.188	0.75	14.875	16.875	0.5
13	15	0.75	13.75	15.25	0.75	14.188	16.188	0.813	14.875	16.875	0.75
13	15	0.813	13.75	15.375	0.75	14.188	16.563	0.594	14.875	16.875	0.813
13	15	1	13.75	15.5	0.75	14.188	16.75	0.875	14.875	16.875	0.875
13.094	15.094	0.75	13.75	15.75	0.625	14.25	15.75	0.688	14.875	16.875	0.938
13.125	14.625	0.75	13.75	15.75	0.75	14.25	15.75	0.75	14.875	16.875	1
13.125	14.875	0.625	13.75	15.75	0.813	14.25	15.984	0.75	14.875	16.875	1.219
13.125	15	0.75	13.75	15.75	0.969	14.25	16	0.688	14.875	17	0.813
13.125	15.125	0.75	13.75	15.75	1	14.25	16	0.75	14.875	17	0.875
13.125	15.125	0.813	13.75	16	0.813	14.25	16	0.813	14.875	17.5	0.875
13.188	14.188	0.5	13.75	16	0.875	14.25	16	0.875	14.906	17	0.828
13.188	14.375	0.625	13.781	15.094	0.781	14.25	16.25	0.625	14.906	17	0.875
13.188	14.75	0.703	13.813	16	0.813	14.25	16.25	0.75	14.938	16.438	0.75
13.25	14.25	0.5	13.813	16	1	14.25	16.25	0.813	15	16	0.5
13.25	14.406	0.625	13.875	14.875	0.5	14.25	16.5	0.813	15	16.25	0.625
13.25	14.5	0.625	13.875	15.375	0.75	14.25	16.5	0.875	15	16.25	0.813
13.25	14.75	0.625	13.875	15.5	0.688	14.344	16	0.688	15	16.375	0.531
13.25	14.75	0.688	13.875	15.5	0.813	14.375	15.875	0.75	15	16.5	0.625
13.25	14.75	0.75	13.875	15.625	0.625	14.375	15.938	0.781	15	16.5	0.688
13.25	14.875	0.688	13.875	15.875	0.5	14.375	16	0.688	15	16.5	0.75
13.25	14.875	0.75	13.875	15.875	0.813	14.375	16.094	0.781	15	16.5	0.813
13.25	15	0.688	13.875	16	0.813	14.375	16.375	0.75	15	16.5	1.25
13.25	15	0.75	13.875	16	1	14.375	16.406	0.75	15	16.75	0.75
13.25	15.125	0.5	13.938	15.438	0.625	14.438	15.938	0.625	15	16.75	0.813
13.25	15.125	0.688	13.938	15.438	0.688	14.438	16	0.75	15	16.875	0.75

Please use size tables in section *Size options of heavy industrial seals on page 200* to determine your required seal type and size.

Seals for heavy industrial applications – inch dimensions

d₁ 15–18 in

Principal dimensions

d ₁	D	B									
15	17	0.5	15.688	16.938	0.75	16.25	18.25	0.75	17.25	19.25	0.75
15	17	0.625	15.75	16.75	0.5	16.25	18.25	0.813	17.25	19.25	0.813
15	17	0.75	15.75	17	0.625	16.25	18.25	1	17.25	19.25	0.875
15	17	0.813	15.75	17	0.75	16.25	18.5	0.813	17.25	19.25	0.938
15	17	0.875	15.75	17.063	0.781	16.25	18.5	1.25	17.313	18.313	0.5
15	17	1	15.75	17.25	0.563	16.375	17.375	0.5	17.313	19.063	0.75
15	17	1.188	15.75	17.25	0.578	16.375	17.875	0.688	17.313	19.313	0.875
15	17	1.25	15.75	17.25	0.688	16.375	17.875	0.75	17.359	19.359	0.813
15	17.25	0.813	15.75	17.25	0.75	16.375	18.375	0.813	17.375	18.875	0.75
15	17.25	0.875	15.75	17.313	0.688	16.375	18.375	1	17.406	18.406	0.5
15	17.5	0.813	15.75	17.5	0.688	16.5	17.5	0.5	17.5	18.5	0.5
15	17.5	0.875	15.75	17.5	0.75	16.5	17.75	0.75	17.5	18.75	0.5
15	17.5	0.938	15.75	17.5	0.781	16.5	17.875	0.75	17.5	18.906	0.766
15	17.5	1	15.75	17.5	0.813	16.5	18	0.625	17.5	19	0.625
15	17.5	1.25	15.75	17.719	0.813	16.5	18	0.688	17.5	19	0.688
15	17.75	0.813	15.75	17.75	0.625	16.5	18	0.75	17.5	19	0.75
15	17.75	0.875	15.75	17.75	0.688	16.5	18.25	0.75	17.5	19	0.813
15.109	16.75	0.75	15.75	17.75	0.75	16.5	18.5	0.625	17.5	19.25	0.625
15.125	16.75	0.75	15.75	17.75	0.813	16.5	18.5	0.75	17.5	19.25	0.688
15.125	17.125	0.625	15.75	17.75	0.875	16.5	18.5	0.813	17.5	19.25	0.75
15.125	17.125	0.75	15.75	18	0.813	16.5	18.5	0.875	17.5	19.5	0.688
15.156	17.125	0.984	15.75	18	0.875	16.5	18.5	0.906	17.5	19.5	0.75
15.156	17.156	0.813	15.75	18.109	0.984	16.5	18.5	1	17.5	19.5	0.813
15.188	17.188	0.75	15.75	18.5	1	16.5	19	0.813	17.5	19.75	0.75
15.25	16.25	0.5	15.813	17.438	0.813	16.5	19	0.875	17.5	19.75	0.813
15.25	16.563	0.781	15.875	17.375	0.75	16.531	18.031	0.75	17.5	20	0.75
15.25	16.625	0.531	15.875	17.5	0.75	16.563	18.124	0.75	17.563	19.063	0.75
15.25	16.75	0.688	15.875	17.75	0.875	16.625	17.625	0.5	17.625	19.125	0.75
15.25	16.75	0.75	15.875	17.875	0.75	16.625	18.125	0.75	17.625	19.25	0.688
15.25	16.969	0.859	15.875	17.875	0.813	16.625	18.5	0.75	17.625	19.375	0.75
15.25	17.25	0.625	15.875	18	0.984	16.625	18.625	0.813	17.625	19.625	0.688
15.25	17.25	0.75	15.938	17.313	0.625	16.688	18.031	0.75	17.625	19.625	0.813
15.25	17.25	0.813	15.938	17.438	0.75	16.75	18	0.75	17.688	19.188	1
15.25	17.25	0.875	15.938	17.938	0.75	16.75	18.063	0.781	17.688	19.688	0.906
15.25	17.25	1	15.938	17.938	0.875	16.75	18.25	0.688	17.719	19.219	0.75
15.313	16.875	0.688	15.938	18	0.75	16.75	18.25	0.75	17.719	20.078	0.984
15.313	17.313	0.688	16	17	0.5	16.75	18.5	0.688	17.75	18.75	0.5
15.313	17.313	0.813	16	17.313	0.781	16.75	18.5	0.875	17.75	19	0.75
15.359	16.891	0.75	16	17.406	0.609	16.75	18.75	0.75	17.75	19.25	0.75
15.359	17.719	0.688	16	17.5	0.688	16.75	18.75	0.813	17.75	19.375	0.75
15.375	16.75	0.531	16	17.5	0.75	16.75	19	0.813	17.75	19.5	0.625
15.375	16.75	0.75	16	17.625	0.688	16.75	19	0.875	17.75	19.75	0.75
15.375	16.875	0.75	16	17.625	0.75	16.75	19	0.906	17.75	19.75	0.813
15.375	17.125	0.813	16	17.75	0.75	16.875	18.375	0.75	17.75	19.75	1
15.375	17.25	0.688	16	17.875	0.75	16.875	18.875	0.813	17.75	20.078	0.875
15.375	17.25	0.75	16	18	0.5	17	18	0.5	17.797	19.797	0.813
15.375	17.25	0.813	16	18	0.75	17	18.25	0.5	17.875	18.875	0.5
15.375	17.375	0.688	16	18	0.813	17	18.25	0.563	17.875	19.5	0.625
15.375	17.375	0.813	16	18	0.875	17	18.25	0.625	17.875	19.875	0.75
15.375	17.375	1	16	18	1	17	18.25	0.75	17.875	19.875	0.813
15.438	16.938	0.75	16	18	1.125	17	18.313	0.781	17.875	19.875	0.844
15.438	17.469	0.75	16	18.125	0.875	17	18.5	0.625	17.938	19.313	0.813
15.5	16.5	0.5	16	18.5	0.813	17	18.5	0.688	18	19	0.5
15.5	16.75	0.563	16	19	0.75	17	18.5	0.719	18	19.313	0.781
15.5	16.813	0.781	16.063	17.063	0.5	17	18.5	0.75	18	19.438	0.5
15.5	16.875	0.625	16.094	17.5	0.75	17	18.5	0.875	18	19.5	0.688
15.5	17	0.75	16.125	17.125	0.5	17	18.75	0.75	18	19.5	0.75
15.5	17.25	0.75	16.125	17.625	0.75	17	19	0.625	18	19.5	0.813
15.5	17.25	0.766	16.125	18.125	0.75	17	19	0.75	18	19.5	1
15.5	17.375	0.813	16.125	18.125	0.813	17	19	0.813	18	19.5	1.25
15.5	17.5	0.75	16.141	18.141	0.813	17	19	0.875	18	19.625	0.813
15.5	17.5	0.813	16.188	17.438	0.75	17	19	1	18	19.75	0.688
15.5	17.5	0.875	16.188	18.188	0.813	17	19.25	0.813	18	19.75	0.75
15.5	17.5	0.906	16.25	17.25	0.5	17	19.25	1	18	19.75	0.813
15.5	17.75	0.813	16.25	17.75	0.625	17	19.5	0.813	18	19.875	0.688
15.5	17.75	1	16.25	17.75	0.688	17	19.5	0.875	18	19.875	0.75
15.5	18	0.813	16.25	17.75	0.75	17.125	18.125	0.5	18	20	0.625
15.5	18	1	16.25	17.75	0.875	17.125	18.625	0.75	18	20	0.75
15.563	16.563	0.5	16.25	18	0.625	17.125	19.094	0.906	18	20	0.813
15.563	16.938	0.703	16.25	18	0.688	17.125	19.125	0.813	18	20	0.875
15.625	17.25	0.75	16.25	18	0.75	17.25	18.5	0.625	18	20	1
15.625	17.5	0.875	16.25	18	0.813	17.25	18.75	0.625	18	20.25	0.813
15.625	17.625	0.813	16.25	18	1	17.25	18.75	0.688	18	20.25	1
15.625	17.625	0.875	16.25	18.25	0.688	17.25	18.75	0.75	18	20.5	0.813

Please use size tables in section *Size options of heavy industrial seals* on page 200 to determine your required seal type and size.

Radial shaft seals | Seals for heavy industrial applications – inch dimensions

d₁ 18–22.5 in

Principal dimensions

d ₁	D	B									
18	20.5	0.875	19	21	0.5	20	22.5	0.875	21.437	23.375	0.859
18	20.5	1.25	19	21	0.75	20.063	21.625	0.781	21.437	23.437	0.813
18	21	0.688	19	21	0.781	20.063	21.656	0.688	21.438	23.188	0.75
18	21	0.75	19	21	0.813	20.063	22.063	0.813	21.5	22.5	0.5
18	21	0.875	19	21	0.875	20.078	22.078	0.813	21.5	22.688	0.75
18.031	20.031	0.813	19	21	1	20.109	22.109	0.813	21.5	22.75	0.75
18.063	20.063	0.813	19	21.5	0.75	20.125	22.125	0.75	21.5	23	0.625
18.11	20.078	0.813	19	21.5	0.875	20.125	22.125	0.813	21.5	23	0.75
18.11	20.109	0.813	19.125	20.125	0.5	20.141	22.25	0.875	21.5	23	1
18.125	19.625	0.75	19.125	21.125	0.813	20.187	22.188	0.813	21.5	23.25	0.75
18.125	19.75	0.75	19.188	20.938	0.625	20.234	22.234	0.813	21.5	23.25	0.813
18.125	20.094	0.859	19.188	21.188	0.813	20.25	21.25	0.5	21.5	23.5	0.5
18.125	20.5	0.875	19.25	20.25	0.5	20.25	21.75	0.75	21.5	23.5	0.75
18.125	20.5	1	19.25	20.75	0.75	20.25	21.813	0.781	21.5	23.5	0.813
18.25	19.75	0.688	19.25	21	0.75	20.25	22.25	0.813	21.5	23.5	0.875
18.25	19.75	0.75	19.25	21	0.813	20.25	22.25	0.875	21.5	23.625	0.875
18.25	19.875	0.688	19.25	21.25	0.75	20.25	22.375	0.75	21.5	23.75	0.875
18.25	19.875	0.75	19.25	21.25	0.813	20.25	22.375	1	21.5	24	0.875
18.25	19.875	1	19.375	20.375	0.5	20.25	22.5	0.75	21.625	23.375	0.75
18.25	20.25	0.813	19.375	20.875	0.75	20.25	22.5	0.875	21.625	23.625	0.813
18.25	21.25	0.75	19.375	21	0.75	20.375	22.188	0.813	21.625	23.625	0.859
18.375	19.375	0.5	19.375	21	0.813	20.437	22.063	0.813	21.625	23.625	0.875
18.375	19.875	0.688	19.375	21.375	0.813	20.438	22.5	0.75	21.625	23.625	1
18.375	19.875	0.75	19.5	20.5	0.5	20.438	22.5	0.813	21.688	23.188	0.75
18.375	19.938	0.625	19.5	21	0.75	20.469	21.969	0.75	21.75	23.063	0.781
18.375	19.938	0.688	19.5	21.25	0.813	20.47	22.469	0.813	21.75	23.25	0.75
18.375	20	0.75	19.5	21.5	0.5	20.5	21.5	0.5	21.75	23.25	1
18.375	20.063	0.781	19.5	21.5	0.625	20.5	21.813	0.781	21.75	23.5	0.75
18.375	20.078	0.75	19.5	21.5	0.75	20.5	22	0.625	21.75	23.75	0.75
18.375	20.375	0.813	19.5	21.5	0.813	20.5	22	0.75	21.75	23.75	0.813
18.375	20.375	0.875	19.5	21.5	0.875	20.5	22	0.953	21.75	23.75	0.875
18.375	20.5	0.75	19.5	21.688	0.75	20.5	22.25	0.813	21.75	24	0.875
18.375	20.5	0.875	19.5	21.688	0.875	20.5	22.5	0.625	21.75	24.25	0.875
18.438	20.5	0.813	19.5	21.75	0.875	20.5	22.5	0.75	21.75	24.5	0.875
18.5	19.5	0.5	19.625	21.078	0.5	20.5	22.5	0.813	21.75	24.75	0.875
18.5	19.813	0.781	19.625	21.078	0.531	20.5	22.5	0.875	21.75	24.75	1
18.5	19.875	0.75	19.625	21.125	0.5	20.5	22.5	1	21.875	23.875	0.813
18.5	20	0.688	19.625	21.375	0.75	20.5	22.75	0.875	21.938	22.938	0.5
18.5	20	0.75	19.625	21.625	0.813	20.516	22.516	0.813	22	23	0.5
18.5	20.25	0.688	19.688	21.188	0.75	20.625	22.125	0.75	22	23.5	0.5
18.5	20.25	0.75	19.688	21.438	0.875	20.625	22.625	0.813	22	23.5	0.75
18.5	20.438	0.859	19.688	21.672	0.813	20.75	22.25	0.75	22	23.5	1
18.5	20.5	0.75	19.688	21.688	0.813	20.75	22.75	0.75	22	23.75	0.813
18.5	20.5	0.813	19.75	20.75	0.5	20.75	22.75	0.813	22	23.75	0.875
18.5	20.5	0.875	19.75	21.25	0.75	20.75	22.75	0.875	22	24	0.75
18.5	20.5	1	19.75	21.75	0.813	20.75	22.75	1	22	24	0.813
18.5	21	0.875	19.75	21.75	0.875	20.75	23	0.813	22	24	0.875
18.531	20.469	0.859	19.75	22	0.813	20.75	23	0.875	22	24	1
18.625	19.875	0.75	19.75	22.125	0.875	20.828	23.828	0.813	22	24.25	0.813
18.625	20.125	0.75	19.75	22.25	0.875	20.875	22.875	0.75	22	24.25	0.875
18.625	20.625	0.813	19.812	21.75	0.781	20.875	22.875	0.813	22	24.25	1
18.688	20.656	0.859	19.875	21.875	0.813	20.875	22.875	0.875	22	24.5	0.875
18.703	20.703	1	19.875	22	0.813	21	22	0.5	22.047	24.016	0.875
18.75	19.75	0.5	19.875	22	0.875	21	22.313	0.781	22.062	24	0.859
18.75	20	0.5	19.938	21.188	0.625	21	22.5	0.75	22.063	24.063	0.813
18.75	20.25	0.5	19.938	21.5	0.75	21	22.75	0.75	22.125	23.875	0.75
18.75	20.25	0.75	19.938	21.688	0.625	21	23	0.625	22.125	24.125	0.813
18.75	20.25	0.813	19.938	21.688	0.75	21	23	0.75	22.25	24.25	0.813
18.75	20.25	1	20	21	0.5	21	23	0.813	22.25	24.25	0.875
18.75	20.5	0.75	20	21.25	0.625	21	23	0.875	22.25	24.5	0.875
18.75	20.75	0.75	20	21.313	0.781	21	23.25	0.813	22.375	24.25	0.75
18.75	20.75	0.813	20	21.5	0.625	21	23.25	0.875	22.375	24.375	0.875
18.75	20.75	0.875	20	21.5	0.688	21	23.5	0.875	22.375	25.25	0.875
18.875	20.469	0.781	20	21.5	0.75	21.125	22.125	0.5	22.375	25.25	1.125
18.875	20.844	0.859	20	21.5	0.875	21.125	23.125	0.813	22.438	24	0.75
18.875	20.875	0.813	20	21.75	0.75	21.25	22.25	0.5	22.438	24.25	0.75
18.938	20.5	0.781	20	21.75	0.813	21.25	22.75	0.75	22.438	24.375	0.859
18.938	20.938	0.813	20	21.969	0.766	21.25	23	0.75	22.438	24.438	0.75
19	20	0.5	20	22	0.625	21.25	23.25	0.625	22.438	24.438	0.875
19	20.203	0.531	20	22	0.75	21.25	23.25	0.75	22.438	24.5	0.75
19	20.313	0.781	20	22	0.813	21.25	23.25	0.813	22.5	23.5	0.5
19	20.5	0.75	20	22	0.875	21.25	23.25	0.875	22.5	23.688	0.75
19	20.5	1.031	20	22	1	21.313	22.75	0.703	22.5	24	0.75
19	20.5	1.047	20	22.125	1	21.375	23.375	0.813	22.5	24.25	0.75

Please use size tables in section **Size options of heavy industrial seals on page 200** to determine your required seal type and size.

Seals for heavy industrial applications – inch dimensions

d₁ 22.5–29.5 in

Principal dimensions

d ₁	D	B									
22.5	24.25	0.875	24	25.938	0.859	25.375	27.375	0.75	27	28.5	0.75
22.5	24.25	0.984	24	26	0.75	25.375	27.375	0.813	27	29	0.75
22.5	24.5	0.75	24	26	0.813	25.438	27.188	0.75	27	29	0.813
22.5	24.5	0.813	24	26	0.875	25.5	26.5	0.5	27	29	0.875
22.5	24.5	0.875	24	26.25	0.875	25.5	27	0.75	27	29	1
22.5	24.75	0.875	24	26.25	1	25.5	27	0.875	27	29.5	0.875
22.5	25	0.875	24	26.5	0.875	25.5	27	1	27	29.5	1
22.625	24.125	0.5	24	26.5	1	25.5	27.5	0.75	27	30	0.875
22.625	24.375	0.781	24	27	0.875	25.5	27.5	0.813	27.125	29.625	0.75
22.625	24.625	0.813	24.094	26.094	0.813	25.5	27.5	0.875	27.25	29.25	0.813
22.672	24.172	0.75	24.125	25.125	0.5	25.5	27.5	0.938	27.25	29.25	0.875
22.688	24.563	0.75	24.125	26	0.813	25.5	28	1	27.375	29.375	0.813
22.75	24.328	0.578	24.25	25.25	0.5	25.531	27.031	0.75	27.5	29	0.75
22.75	24.5	0.75	24.25	25.625	0.563	25.563	28.063	0.984	27.5	29.5	0.75
22.75	24.75	0.813	24.25	25.75	0.75	25.625	26.625	0.5	27.5	29.5	0.813
22.75	24.75	0.875	24.25	25.75	1	25.625	26.875	0.625	27.5	29.5	0.875
22.75	25	0.875	24.25	26	1	25.625	27.625	0.813	27.5	29.5	1
22.75	25.5	0.875	24.25	26.25	0.813	25.625	27.75	1	27.563	29.563	0.813
22.813	24.25	0.625	24.25	26.25	0.875	25.75	26.75	0.5	27.625	29.125	0.75
22.813	24.313	0.75	24.25	26.25	1	25.75	27	0.5	27.625	29.625	0.75
22.813	24.75	0.859	24.25	26.75	1	25.75	27	0.625	27.75	29.75	0.813
22.813	24.813	0.813	24.25	26.766	0.984	25.75	27.25	0.75	27.844	29.844	0.875
22.875	24.875	0.813	24.375	25.625	0.625	25.75	27.75	0.813	27.875	29.813	0.875
22.938	24.938	0.813	24.375	26.375	0.75	25.75	28.125	0.75	27.875	29.875	0.813
23	24	0.5	24.375	26.375	0.875	25.875	26.875	0.5	27.953	29.953	0.813
23	24.25	0.75	24.438	26	0.75	25.875	27.875	0.813	27.969	29.969	0.813
23	24.5	0.75	24.438	26.438	0.75	25.875	28	0.875	28	29.25	0.625
23	24.75	0.75	24.438	26.438	0.813	25.875	28	1	28	29.5	0.75
23	25	0.813	24.5	25.5	0.5	25.938	28	0.75	28	29.5	1
23	25	0.875	24.5	25.813	0.781	25.984	28.156	0.813	28	29.625	0.75
23	25.375	0.875	24.5	26	0.75	26	27	0.5	28	29.813	0.75
23	25.5	0.875	24.5	26.25	0.813	26	27.25	0.625	28	30	0.813
23	25.5	1	24.5	26.5	0.813	26	27.313	0.781	28	30	0.875
23.16	24.609	0.75	24.5	26.5	0.875	26	27.5	0.75	28	30	1
23.188	24.5	0.781	24.609	26.109	1	26	27.5	1	28	30.25	0.813
23.188	25.188	0.813	24.625	25.875	0.563	26	27.625	0.75	28	30.25	1.25
23.25	24.563	0.781	24.641	25.641	0.5	26	27.625	1	28	30.5	0.875
23.25	24.75	0.75	24.75	25.75	0.5	26	28	0.75	28	30.5	0.984
23.25	25	0.75	24.75	26.75	0.625	26	28	0.813	28	30.5	1
23.25	25.25	0.75	24.75	26.75	0.813	26	28	0.875	28	31	0.875
23.25	25.25	0.813	24.813	26.813	0.813	26	28	1	28.188	30.688	0.984
23.25	25.343	1	24.875	26.375	1	26	28.125	0.875	28.25	29.5	0.625
23.375	24.875	0.75	24.875	26.875	0.813	26	28.5	0.875	28.25	29.75	1
23.375	25.375	0.75	24.938	26.938	0.813	26.125	27.625	0.75	28.25	30.25	0.813
23.375	25.375	0.813	25	26	0.5	26.125	27.625	0.875	28.25	30.25	1.25
23.375	25.375	0.875	25	26.25	0.625	26.125	28.125	0.813	28.484	29.859	0.688
23.375	25.375	1	25	26.5	0.75	26.125	28.125	0.875	28.484	30.844	0.984
23.5	24.5	0.5	25	26.5	0.875	26.125	28.125	1	28.5	29.5	0.5
23.5	24.813	0.781	25	26.5	1	26.188	28.688	0.984	28.5	30.5	0.625
23.5	25.25	0.75	25	26.811	0.813	26.219	27.219	0.5	28.5	30.5	0.75
23.5	25.5	0.75	25	26.875	0.75	26.25	28.25	0.813	28.5	30.5	0.813
23.5	25.5	0.813	25	27	0.75	26.297	27.797	1	28.5	30.5	0.875
23.5	25.5	0.875	25	27	0.813	26.375	28.188	0.813	28.5	31	0.75
23.5	25.5	1	25	27	0.875	26.375	28.188	0.875	28.5	31	0.875
23.563	25.25	0.75	25	27	0.906	26.375	28.25	0.875	28.625	30.625	0.813
23.563	25.375	0.75	25	27	1	26.375	28.375	0.813	28.75	29.75	0.5
23.594	25.094	0.75	25	27.25	0.875	26.375	28.375	1	28.75	30.75	0.813
23.625	25.125	0.75	25	27.375	0.875	26.438	28.438	0.813	28.75	30.75	0.875
23.625	25.563	0.859	25	27.5	0.875	26.5	28	0.75	28.875	30.875	0.813
23.625	25.625	0.813	25	27.5	1	26.5	28	0.875	29	30.5	0.75
23.625	25.75	0.875	25.125	26.125	0.5	26.5	28.5	0.813	29	31	0.813
23.625	26	0.875	25.125	26.75	0.75	26.5	28.5	0.875	29	31	0.875
23.75	25.25	0.75	25.188	26.781	0.781	26.625	28.125	0.75	29	31	1
23.75	25.25	0.875	25.188	26.875	0.75	26.688	28.688	0.813	29	31.5	0.875
23.75	25.25	1	25.188	26.938	0.75	26.75	28.563	0.813	29	31.5	1
23.75	25.75	0.813	25.188	27.188	0.813	26.75	28.75	0.813	29	32	0.875
23.75	25.75	0.875	25.203	27.172	0.813	26.75	29.25	0.984	29.25	30.25	0.5
23.75	25.75	1	25.219	27.219	0.813	26.781	28.781	0.813	29.25	30.75	1
23.875	24.875	0.5	25.25	26.75	0.75	26.813	28.813	0.813	29.25	31.25	0.813
23.875	26	0.875	25.25	27.25	0.75	26.875	28.125	0.5	29.375	31.125	0.75
24	25	0.5	25.25	27.25	0.813	26.875	28.875	0.813	29.375	31.375	0.813
24	25.5	0.75	25.25	27.25	0.875	27	28	0.5	29.5	30.5	0.5
24	25.5	1	25.25	28	0.875	27	28.313	0.781	29.5	31	1
24	25.625	0.813	25.375	26.875	0.563	27	28.5	0.625	29.5	31.5	0.75

Please use size tables in section Size options of heavy industrial seals on page 200 to determine your required seal type and size.



Radial shaft seals | Seals for heavy industrial applications – inch dimensions

d₁ 29.5–39.5 in

Principal dimensions

d ₁	D	B									
29.5	31.5	0.813	31.5	32.5	0.5	33.5	35.438	0.781	36.5	38	0.75
29.5	31.5	0.875	31.5	32.75	0.5	33.5	35.5	0.813	36.5	38.25	0.813
29.5	31.5	1	31.5	33	0.75	33.5	35.5	0.875	36.5	38.438	0.813
29.5	31.875	0.984	31.5	33.5	0.813	33.5	35.625	0.875	36.5	38.438	1
29.5	32	0.75	31.5	33.5	1.25	33.5	35.75	0.875	36.5	38.5	0.813
29.5	32	0.875	31.5	34	0.906	33.5	36	0.875	36.5	38.5	0.875
29.5	32	1	31.75	32.75	0.5	33.5	36	0.938	36.5	38.5	1
29.5	32.25	0.875	31.75	33.063	0.781	33.5	36.25	0.875	36.5	39	0.75
29.5	32.25	1	31.75	33.25	0.75	33.625	35.594	0.938	36.5	39	0.813
29.5	32.5	0.875	31.75	33.25	1	33.625	35.625	0.875	36.625	38.625	0.813
29.5	32.5	0.938	31.75	33.75	0.75	33.75	35.75	0.813	36.75	38.75	0.813
29.563	31.563	0.813	31.75	33.75	0.813	33.858	36.219	0.984	36.75	38.75	0.875
29.625	31.625	0.813	31.75	33.75	0.875	33.859	35.859	0.813	36.75	38.75	1
29.688	31.688	0.813	31.75	33.75	1.25	33.938	35.469	0.813	36.75	39.25	0.875
29.75	31.75	0.75	31.874	34.375	0.984	34	35	0.5	37	38	0.5
29.75	31.75	0.875	31.875	34.375	0.984	34	35.5	0.75	37	38.5	1
29.75	32.25	0.75	31.89	33.203	0.781	34	36	0.75	37	39	0.813
29.875	31.875	0.813	31.89	33.859	0.984	34	36	0.813	37	39	0.875
29.906	30.906	0.5	31.89	33.891	0.813	34	36	0.875	37	39	1
29.906	31.906	0.813	31.89	34.25	0.984	34	36.25	1.25	37	39	1.25
29.938	31.938	0.875	32	33	0.5	34	36.5	0.75	37	39.25	0.875
29.968	31.969	0.813	32	34	0.813	34	36.5	0.813	37.125	39.125	1.25
30	31	0.5	32	34	0.875	34	36.5	0.875	37.25	39.25	0.813
30	31.25	0.5	32	34	1.25	34	36.5	0.984	37.25	39.25	0.875
30	31.5	0.75	32	34.5	0.875	34	37	0.875	37.375	38.625	0.5
30	31.625	0.625	32.125	33.625	0.625	34	37	1	37.375	39.375	0.813
30	31.625	0.75	32.125	34.125	0.813	34.25	36.25	0.813	37.437	39.5	0.875
30	32	0.75	32.125	34.125	0.875	34.25	36.25	0.875	37.5	39	0.75
30	32	0.813	32.125	34.625	0.875	34.25	36.75	0.875	37.5	39	0.875
30	32	0.875	32.125	34.688	0.75	34.5	36	0.75	37.5	39.5	0.75
30	32	1	32.156	34.25	0.75	34.5	36.5	0.75	37.5	39.5	0.813
30	32	1.25	32.188	34.188	0.813	34.5	36.5	0.813	37.5	40.25	1
30	32.25	0.875	32.203	34.203	1.25	34.5	36.5	0.875	37.797	40.156	0.875
30	32.25	1.156	32.25	33.562	0.781	34.5	36.5	1	37.813	39.813	0.813
30	32.5	0.875	32.25	33.625	0.625	34.5	36.5	1.25	37.875	39.875	1.25
30	32.5	1	32.25	34.25	0.813	34.5	37.5	0.875	38	39	0.5
30	32.75	0.875	32.281	34.25	0.984	34.625	37	0.813	38	39.5	0.75
30	33	0.875	32.313	34.5	0.875	34.75	36.625	0.75	38	39.5	0.875
30.125	31.125	0.5	32.375	33.625	0.5	34.75	36.75	0.875	38	40	0.625
30.25	32.25	0.813	32.375	33.625	0.625	35	36	0.5	38	40	0.813
30.25	32.25	0.875	32.375	34.375	1	35	36.5	0.625	38	40	0.875
30.25	32.5	0.875	32.375	34.875	0.875	35	36.5	0.75	38	40	1
30.25	32.5	1	32.5	33.813	0.781	35	37	0.813	38	40	1.25
30.313	31.813	0.75	32.5	34.5	0.813	35	37	0.875	38	41	0.875
30.313	32.375	0.875	32.5	34.5	0.875	35	37.5	0.813	38.25	40.25	0.813
30.375	32.375	0.813	32.5	34.5	1	35	37.5	0.875	38.25	40.25	0.875
30.5	32.281	0.875	32.5	34.5	1.25	35	38	0.875	38.25	40.75	0.75
30.5	32.5	0.75	32.688	33.938	0.5	35.063	37.563	0.984	38.25	40.75	0.875
30.5	32.5	0.813	32.688	34.688	0.813	35.25	37.25	0.875	38.25	41.25	0.875
30.5	32.5	0.875	32.75	34.25	0.75	35.25	38.25	0.75	38.359	40.75	0.875
30.5	32.5	1	32.75	34.5	0.875	35.25	38.25	0.813	38.5	40.5	0.813
30.5	33	0.75	32.75	34.75	0.813	35.375	36.625	0.625	38.5	40.75	0.75
30.5	33	0.875	32.75	35	0.875	35.375	37.375	0.813	38.5	41	0.875
30.5	33	1	32.969	34.625	0.75	35.375	37.375	0.875	38.5	41	1
30.5	33.5	0.875	32.984	33.984	0.5	35.375	37.375	1	38.75	40.688	0.813
30.563	32.563	0.813	33	34	0.5	35.438	37.438	0.813	38.75	40.75	0.813
30.75	31.75	0.5	33	34.5	0.625	35.5	36.813	0.781	38.75	40.75	0.875
30.75	32.75	0.875	33	34.5	0.75	35.5	37.5	0.813	38.75	41	0.875
30.75	32.75	1.25	33	34.609	0.75	35.5	37.5	0.875	38.937	41	0.875
31	32	0.5	33	34.625	0.75	35.5	37.5	1	39	40	0.5
31	32.5	0.563	33	34.625	0.781	35.5	38	1	39	40.938	1
31	32.5	0.75	33	34.688	0.75	35.75	37.75	0.813	39	41	0.75
31	32.5	0.875	33	34.938	0.813	36	37	0.5	39	41	0.813
31	32.5	1	33	35	0.75	36	37.5	0.75	39	41	0.875
31	33	0.813	33	35	0.813	36	38	0.75	39	41	1
31	33	0.875	33	35	0.875	36	38	0.813	39	41	1.25
31	33	1	33	35.25	0.875	36	38	0.875	39	41.5	0.75
31	33	1.25	33	35.5	0.75	36	38	1	39	41.5	0.875
31	33.5	0.875	33	35.5	0.875	36	38	1.25	39.25	40.75	0.75
31	34	0.875	33	36	1	36	38.5	0.875	39.25	41.25	0.813
31.25	32.75	0.75	33.25	35.25	0.75	36	38.5	1	39.5	40.5	0.5
31.25	33.25	0.75	33.25	35.25	0.813	36.031	38.031	0.813	39.5	40.813	0.781
31.375	33.25	0.625	33.438	35.438	0.781	36.219	37.531	0.781	39.5	41.5	0.813
31.375	33.25	0.75	33.5	35	0.875	36.219	37.719	0.75	39.5	41.5	1.25

Please use size tables in section Size options of heavy industrial seals on page 200 to determine your required seal type and size.

Seals for heavy industrial applications – inch dimensions

d₁ 39.688–133.406 in

Principal dimensions

d ₁	D	B	d ₁	D	B	d ₁	D	B	d ₁	D	B
39.688	41.75	0.813	44.094	46.063	0.813	52	54	0.813	67	68.5	0.75
39.75	41.75	0.813	44.5	46	0.75	52.188	54.188	0.813	67	69	0.813
39.75	42.25	0.875	44.5	46	0.875	52.25	54.125	0.813	68	70	0.75
40	41.5	0.75	44.5	46.5	0.813	52.5	54.5	0.813	68	70	0.813
40	42	0.813	45	46.5	0.75	52.5	55	0.75	68	70	1
40	42	0.875	45	46.625	1	52.5	55	0.875	68.5	70.5	0.813
40	42	1	45	46.75	0.875	52.875	53.875	0.5	69	71	0.813
40	42.5	0.875	45	47	0.75	53	54.875	0.813	69.125	71.125	0.813
40	42.5	1	45	47	0.813	53	55	0.781	69.375	71.375	0.813
40.25	41.25	0.5	45	47	0.875	53	55	0.813	70	71	0.5
40.25	41.75	0.75	45.031	46.531	0.75	53.25	54.25	0.5	70	72	0.813
40.266	41.766	0.75	45.125	47.125	0.813	53.5	55	0.75	70	72	0.875
40.5	41.5	0.5	45.25	47.125	0.813	53.625	54.625	0.5	70.5	72.5	0.813
40.5	42	0.75	45.5	47	0.75	54	56	0.813	70.688	72.688	0.875
40.5	42.5	0.813	45.75	47.75	0.75	54	56	1	71	73	0.813
40.5	42.5	0.875	45.75	47.766	0.875	54	56	1.25	71.25	73.25	0.813
40.5	42.5	1	46	48	0.813	54.5	56.5	0.813	72.5	74	0.75
40.5	43	0.875	46	48	0.875	54.75	56.375	0.875	73	75	0.813
40.531	42.281	0.875	46.25	47.75	0.75	55	56	0.5	74	76	0.813
40.75	42	0.688	46.25	48.25	0.813	55	56.312	0.781	74.5	76	0.75
40.75	42	0.75	46.5	48.5	0.875	55	56.5	0.75	74.5	76.5	0.813
41	42.313	0.781	46.5	48.5	1.25	55	57	0.813	75	76.5	0.75
41	42.5	0.75	47	49	0.813	55	57	1.25	75	77	0.813
41	43	0.813	47	49	0.875	55	57.5	0.813	75	77	1
41	43	1.25	47.25	49.25	0.813	55.125	58	0.75	75.188	77.188	0.813
41.125	42.438	0.781	47.375	48.875	0.75	55.25	56.5	0.75	75.75	77.063	0.781
41.125	43.125	1	47.5	48.813	0.781	55.25	58.25	0.75	76	78	0.813
41.25	42.75	0.75	47.5	49.5	0.875	55.5	56.5	0.5	76.25	78.25	0.813
41.25	43.25	0.75	47.5	49.5	1.25	55.5	57.5	0.75	76.5	78.5	0.813
41.313	43.813	0.984	47.75	49.75	0.813	55.5	57.5	0.813	77.5	79.5	0.813
41.375	43.375	0.813	47.75	50.5	1.125	55.75	57.75	1.25	78.25	80	0.625
41.5	43	0.75	47.875	49.875	0.813	55.906	57.875	0.813	79.5	81.5	0.813
41.5	43	1	48	49.5	0.75	56.25	58.125	0.813	80	82	0.813
41.5	43.5	0.875	48	50	0.75	57	59	0.813	80.5	82.438	0.813
41.5	43.5	1.25	48	50	0.813	57	59	0.828	80.5	82.5	0.813
41.5	43.75	0.875	48	50	0.828	57	60	0.75	81	83	0.813
41.625	43.625	0.813	48	50	0.875	57.375	58.875	0.75	82.281	84.25	0.813
41.625	44	0.875	48	50	1	57.5	59.5	0.813	84	86	0.5
41.875	43.188	0.781	48	50	1.25	57.875	58.875	0.5	84	86	0.813
41.875	43.5	1	48.25	49.75	0.75	57.875	60	0.938	85	87	0.813
41.938	43.75	0.875	48.25	50	0.75	58	60	0.75	85.703	87.016	0.781
42	43.5	1	48.25	50.25	0.875	58	60	0.813	86	88	0.813
42	44	0.813	48.375	50.375	0.813	58.5	60.5	0.813	87	89	0.813
42.063	44.063	0.813	48.875	50.875	0.813	58.922	61	0.984	88.031	90.031	0.813
42.25	44.25	0.813	49	50.5	0.563	59	61	0.875	89	91	0.813
42.25	44.25	1	49	50.5	1	59.25	61.25	0.813	93	95	0.813
42.375	44.375	0.75	49	50.75	1	59.5	61.5	1.25	93.78	95.094	0.781
42.5	43.5	0.5	49	51	0.813	59.75	60.75	0.5	94	96	0.813
42.5	44.25	0.875	49	51	1.25	60	61.5	0.75	95.875	97.875	0.813
42.5	44.5	0.75	49.25	50.75	0.75	60	62	0.75	98	99.5	0.75
42.5	44.5	0.813	49.25	51.125	0.813	60	62	0.813	98.75	100.75	0.813
42.5	45	0.75	49.25	51.25	0.813	61	63	0.813	101.25	103.25	0.813
42.5	45	0.875	49.5	50.75	0.75	61.25	62.25	0.5	102	104	0.813
42.5	45.5	0.875	49.5	51.25	0.813	61.25	62.75	0.75	108	110	0.813
42.75	43.75	0.5	49.5	51.5	0.75	61.25	63.25	1	110.5	112.5	0.813
42.75	44.25	0.75	49.5	51.5	0.813	62	63.313	0.781	112	113.938	0.813
43	45	0.75	49.5	52.25	1	62	64	0.813	120.063	122.063	0.813
43	45	0.813	49.625	50.875	0.563	62.25	64.25	0.813	130.266	131.891	1
43	45	0.875	50	51	0.5	62.5	64	0.875	133.406	135.031	1
43	45.5	0.875	50	51.375	0.813	62.5	64.5	0.875			
43.125	44.625	0.75	50	51.5	0.75	63	65	0.813			
43.5	45	0.75	50	52	0.813	63.375	65.75	0.875			
43.5	45.5	0.75	50	52	0.875	63.5	65.5	0.813			
43.5	45.5	0.875	50	52.25	0.75	63.75	65.75	0.875			
43.563	45.563	1	50.5	52.5	0.813	63.781	66.297	0.984			
43.75	45.75	0.875	51	52	0.5	64	65.375	0.875			
43.938	45.438	0.75	51	52.875	0.813	64	66	0.813			
44	45.5	0.75	51	53	0.75	64.5	66.5	0.813			
44	46	0.813	51	53	0.813	65	67	0.813			
44	46	0.875	51.25	53.25	0.875	65.25	67.25	0.813			
44	46	1.25	51.5	53.5	0.781	66	68	0.813			
44	46.5	0.875	51.5	53.5	1.25	66.5	68	0.75			
44	47	0.875	52	53	0.5	66.5	68.5	0.813			
44	47	1.25	52	54	0.75	66.5	69	0.813			

Please use size tables in section *Size options of heavy industrial seals* on page 200 to determine your required seal type and size.

Radial shaft seals | Seals for heavy industrial applications

Machined seals



TBM 1



TBM 2



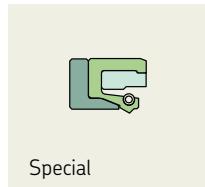
TBM 3



Ball mill



Ball mill
crown seal



Special



Special

TBM (Tunnel Boring Machine) seals protecting the cutter head bearing from heavy contamination (sand, rock, water). The seals can also handle different misalignments and pressure steps. One benefit of the SKF seals are the split version – during the maintenance they can be welded on site and without the need to remove the shaft, therefore the downtime can be reduced significantly.

SKF can manufacture a wide variety of seal profiles with different materials and sizes with its industry-leading SKF SEALJET production system (see details on **page 56**). For additional information about customized machined profiles, refer to publication *Customized machined seals – Product range* or contact SKF.



Sealproduction – SKF machine seals

Machined seals

