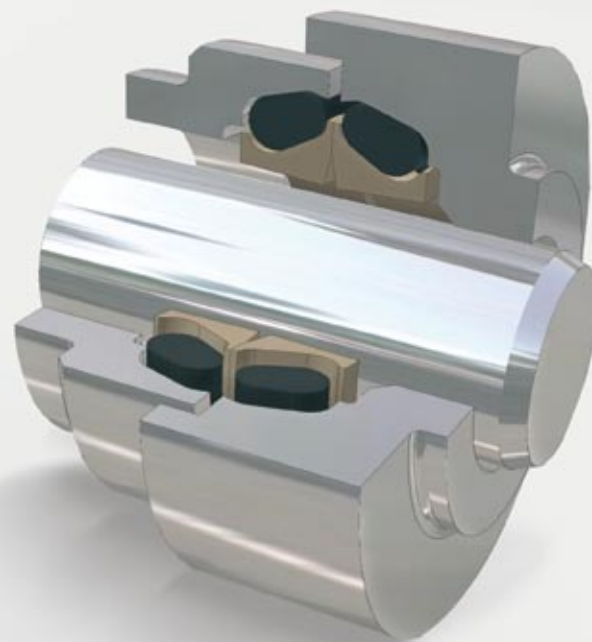


# Mechanical Face Seals



**Your Partner for Sealing Technology**





























# Mechanical Face Seals



TSS Part No.	D <sub>i</sub>	D <sub>a</sub>	L	d <sub>max.</sub>	D±0.1	D <sub>1</sub> ±0.1	D <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub> min.	L <sub>5</sub>	r	S
TLDOA0820	82.0	98.0	22.0	79.0	102.3	101.3	91.0	9.0	11.0	2.8	5.0	3.0
TLDOA0900	90.5	109.0	32.0	87.0	113.6	112.9	101.0	15.0	17.0	3.0	2.5	3.0
TLDOA0920	92.0	109.0	22.0	89.0	113.8	113.0	105.0	9.5	11.5	1.8	2.5	3.0
TLDOA0940	94.0	106.5	22.0	91.0	111.6	110.8	102.0	9.5	11.5	2.0	3.0	3.0
TLDOB0950 <sup>1)</sup>	95.0	114.0	31.0	92.0	120.0	119.2	107.0	15.0	17.0	2.5	3.0	3.0
TLDOA0990	99.0	120.0	28.0	96.0	123.5	122.5	112.0	12.5	14.5	2.8	5.0	3.0
TLDOA1000	100.0	119.0	31.8	97.0	123.2	122.4	111.0	14.5	16.5	2.5	2.5	3.0
TLDOB1000	100.0	120.0	29.4	97.0	125.0	124.2	111.0	14.0	16.0	2.9	3.0	3.0
TLDOA1020	102.0	122.0	32.0	99.0	127.2	126.2	115.0	15.5	17.5	2.5	3.0	3.0
TLDOB1040	104.0	116.7	21.2	101.0	121.0	120.2	107.0	9.5	11.5	2.0	3.0	3.0
TLDOC1040	104.0	121.0	22.0	101.0	125.5	125.1	117.5	9.5	11.5	2.0	3.0	3.0
TLDOB1100 <sup>1)</sup>	109.0	127.0	32.0	106.0	133.0	132.0	121.0	15.0	17.0	2.5	3.0	3.0
TLDOA1090	109.0	132.0	32.0	106.0	136.6	135.6	124.0	15.5	17.5	2.5	3.0	3.0
TLDOA1150	115.0	137.0	31.0	112.0	141.8	140.8	130.0	14.5	16.5	2.5	3.0	3.0
TLDOA1240	124.0	141.0	22.0	121.0	145.8	145.0	136.0	9.5	11.5	2.0	3.0	3.0
TLDOA1270	127.0	146.0	31.8	123.0	150.2	149.4	138.0	14.0	16.0	2.5	2.5	4.0
TLDOD1300	130.0	152.0	38.0	127.0	159.0	158.0	144.0	18.5	20.5	2.5	3.0	3.0
TLDOB1430	143.0	157.0	25.0	140.0	159.7	158.9	152.0	11.5	13.5	2.5	2.8	4.0
TLDOA1460	146.0	168.0	38.0	143.0	177.0	176.0	159.0	18.0	20.0	2.5	3.0	4.0
TLDOC1500	150.0	172.0	40.0	147.0	179.0	178.0	165.0	18.0	20.0	2.5	3.0	4.0
TLDOB1530	154.0	168.0	25.0	151.0	171.0	170.2	164.0	11.5	13.5	2.5	2.8	4.0
TLDOB1630	163.0	191.0	38.0	160.0	196.4	195.5	179.0	18.0	20.0	3.1	6.4	4.0
TLDOA1910	191.0	210.0	28.0	187.0	214.0	213.0	203.0	12.5	14.5	2.8	5.0	3.0
TLDOA1920	192.0	215.0	33.0	189.0	220.8	219.8	207.0	16.5	18.5	3.0	4.0	4.0
TLDOA2090	209.0	234.0	42.0	206.0	242.6	241.6	224.0	19.5	21.5	3.0	4.0	4.0
TLDOA2200	220.0	239.5	31.8	217.0	244.0	243.0	232.0	14.5	16.5	2.8	5.0	3.0
TLDOA2240	223.5	252.0	38.0	220.0	256.6	255.7	238.0	18.0	20.0	3.1	6.4	3.0
TLDOA2400	240.0	262.8	38.0	237.0	273.5	272.5	257.0	19.0	21.0	3.0	4.0	4.0
TLDOA2500	250.0	276.0	41.0	247.0	284.6	283.6	266.0	20.5	22.5	3.0	4.0	4.0
TLDOA2650	265.0	293.0	38.0	262.0	298.0	297.0	280.0	19.0	21.0	3.0	6.4	4.0
TLDOA2750	275.0	303.0	38.0	271.0	308.0	307.0	290.0	18.0	20.5	3.1	4.0	
TLDOB3000	300.0	328.0	39.0	297.0	333.0	332.0	315.0	19.5	22.0	3.0	4.0	4.0
TLDOA3180	318.0	341.0	38.0	315.0	351.6	350.7	335.0	19.0	20.5	3.0	6.4	
TLDOA3185	318.5	346.5	38.0	315.0	351.6	350.6	335.0	19.0	21.5	3.0	6.4	
TLDOA3400	340.0	368.0	38.0	333.0	375.7	374.8	368.0	19.6	22.1	3.1	4.0	2.0
TLDOB3665	366.5	391.0	38.0	363.0	399.5	398.5	382.0	18.5	21.0	3.0	4.0	4.0
TLDOA3665	366.5	394.5	38.0	363.0	399.5	398.6	382.0	18.5	21.0	3.0	6.4	4.0
TLDOA3870	387.0	415.0	38.0	384.0	419.5	418.5	400.0	18.0	20.5	3.0	4.0	3.0
TLDOA4290	429.0	457.0	38.0	426.0	463.5	462.5	444.0	18.0	20.5	3.0	4.0	3.0

Missing values on request <sup>1)</sup> α=12° <sup>2)</sup> α=15°



## Mechanical Face Seals

### Ordering Example

Mechanical Face Seal Type DO in Cast Iron

Inside diameter Di = 115.0 mm

Materials: Seal rings of Cast Iron  
O-Rings of NBR

<u>TSS Article No.</u>	<u>TLDOA1150</u>	-	<u>2FP00</u>
<u>TSS Part No.</u>			
<u>Inside Ø x 10</u>			
<u>Quality Index (Standard)</u>			
<u>Material No.</u>			

Dimensions and Part Number see Table VI, page 12.  
Materials see page 4.





## ■ Installation Recommendations for Type DF Bearing Steel

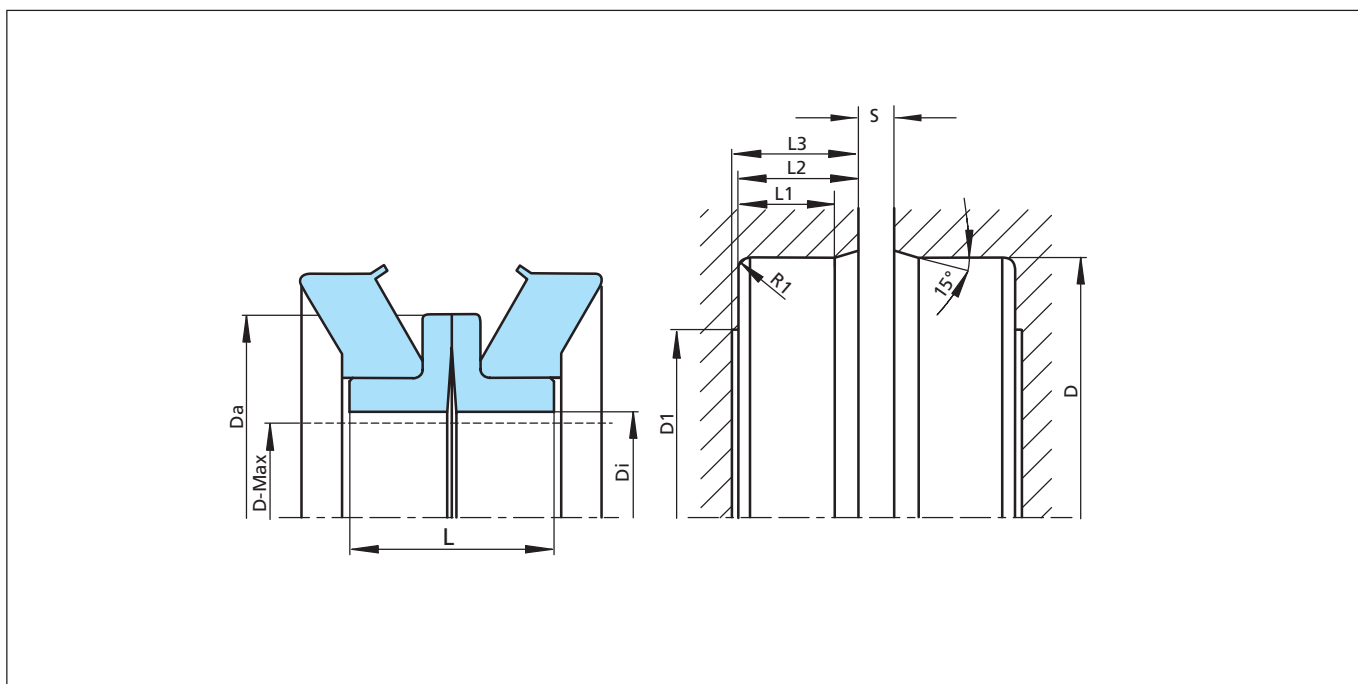


Figure 11 Installation Drawing

**Table VII Installation Dimensions**

TSS Part No.	GNL	$D_i$	$D_a$	L	$d_{max.}$	D	$D_1$	$L_1$	$L_2$	$L_3$	S
TL DFA0420	0627	42.0	59.0	20.0	38.0	65.0	53.0	8.0	10.0	10.5	3.0
TL DFA0470	5301	47.0	62.0	20.0	44.0	70.0	58.0	8.0	10.0	11.0	3.0
TL DFA0505	6161	50.5	65.0	19.0	46.0	76.2	63.0	8.0	10.0	11.0	2.5
TL DFA0540	0870	54.0	73.0	22.0	50.0	80.0	67.0	10.0	11.5	12.0	3.0
TL DFA0585	2011	58.5	73.0	19.0	54.0	82.5	65.0	8.0	10.0	11.0	3.0
TL DFA0586	0351	58.6	80.0	19.6	57.0	84.0	71.0	7.5	9.0	9.5	3.0
TL DFA0635	5471	63.5	81.0	19.0	59.5	87.8	71.0	8.0	9.0	9.5	3.0
TL DFA0670	6361	67.0	86.2	20.0	64.0	95.4	82.0	8.0	10.0	11.0	3.0
TL DFB0670	0926	67.0	87.0	25.0	64.0	95.0	81.0	11.0	12.5	13.0	4.0
TL DFC0670	6391	67.0	91.7	20.0	64.0	95.4	82.0	8.0	10.0	11.0	3.0
TL DFA0680	0691	68.0	86.2	20.0	64.0	95.6	82.0	8.0	10.0	11.0	3.5
TL DFA0738	6461	73.8	92.8	20.0	70.0	102.2	88.0	8.0	10.0	11.0	3.0
TL DFA0740	6571	74.0	99.0	20.0	70.0	102.2	88.0	8.0	10.0	11.0	3.0
TL DFA0770	1002	77.0	97.0	25.0	74.0	105.0	87.0	11.0	12.5	13.5	4.0
TL DFA0817	5311	81.7	101.5	20.0	70.0	110.2	96.0	8.0	10.0	11.0	3.0
TL DFA0825	2001	82.5	100.0	22.0	78.0	114.3	97.0	9.0	11.0	12.0	3.5
TL DFA0875	0331	87.5	109.0	17.5	83.0	113.0	100.0	7.0	8.5	9.5	3.0
TL DFB0875	0398	87.5	111.5	19.0	85.0	115.8	102.0	8.5	10.0	11.0	3.0
TL DFA0920	0751	92.0	113.0	24.0	88.0	125.8	109.0	10.0	12.5	13.0	3.0



# Mechanical Face Seals

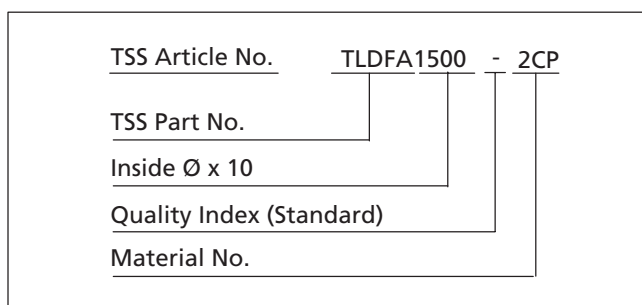
TSS Part No.	GNL	D <sub>i</sub>	D <sub>a</sub>	L	d <sub>max.</sub>	D	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	S
TL DFA0940	6661	94.0	112.5	24.0	90.0	125.8	109.0	10.0	12.5	13.0	3.0
TL DFA0990	0341	99.0	120.0	17.5	95.0	124.0	110.0	7.0	8.5	9.5	3.0
TL DFB0990	0399	99.0	123.0	19.0	95.0	127.3	113.0	7.0	10.0	11.0	3.0
TL DFA1040	0911	104.0	126.0	24.0	100.0	135.0	114.0	10.0	12.0	13.0	4.0
TL DFB1050	2081	105.0	124.0	24.4	101.0	134.9	125.0	12.0	13.3	14.5	3.0
TL DFA1140	2071	114.0	133.2	26.0	110.0	147.9	130.0	10.5	12.0	13.0	4.0
TL DFB1140	0666	114.0	138.0	26.0	110.0	148.0	126.0	10.0	12.0	13.0	4.0
TL DFA1240	5371	124.0	144.0	32.0	119.0	162.5	141.5	17.0	18.5	20.5	3.0
TL DFA1330	1311	133.0	156.0	28.0	128.0	171.5	151.0	11.0	13.0	14.0	6.5
TL DFA1485	5001	148.5	168.0	32.4	143.0	184.1	164.0	15.0	16.5	17.5	5.0
TL DFA1500	0885	150.0	175.0	30.0	145.0	190.0	170.0	13.0	15.0	15.5	5.0
TL DFA1540	2021	154.0	180.0	36.0	149.0	194.0	174.0	17.0	18.4	20.0	4.5
TL DFA1580	0791	158.0	180.0	18.0	153.0	190.0	174.0	7.0	8.0	10.0	6.0
TL DFA1690	2041	169.0	195.0	33.0	164.0	206.2	191.5	14.0	15.1	18.4	5.0
TL DFA1777	5931	177.7	207.0	29.0	173.0	218.9	197.0	15.0	16.6	17.5	
TL DFA1930	6671	193.0	214.3	31.0	187.0	238.9	215.0	18.0	19.4	20.4	3.0
TL DFA1940	5941	194.0	214.5	31.0	188.0	238.8	214.0	19.0	20.1	21.0	
TL DFA1980	0937	198.0	224.0	35.0	195.0	245.0	223.0	15.0	17.0	17.5	6.0
TL DFA2280	2051	228.0	260.5	41.0	221.0	277.1	247.5	22.0	23.5	24.5	4.0
TL DFA2330	1023	233.0	259.0	35.0	225.0	280.0	250.0	15.0	17.0	18.0	6.0
TL DFA2415	6481	241.5	273.5	36.0	235.0	279.4	260.6	16.5	17.5	20.0	2.0
TL DFA2750	5951	275.0	303.0	36.0	270.0	309.4	290.0	16.5	17.5	20.0	2.0
TL DFA2830	5901	283.0	305.0	42.0	278.0	329.4	307.0	17.0	18.5	22.1	3.0
TL DFA3200	5921	320.0	352.5	40.0	312.0	365.1	343.0	18.5	20.0	21.5	2.0
TL DFA3550	2031	355.0	392.0	39.6	345.0	401.7	380.0	21.5	23.0	24.0	1.8
TL DFA4420	6561	442.0	470.0	41.0	435.0	488.7	467.0	17.0	18.4	22.0	2.5
TL DFA4920	5911	492.0	530.0	43.0	480.0	546.1	532.0	18.4	19.9	24.4	2.0

## Ordering Example

Mechanical Face Seal Type DF in Bearing Steel

Inside diameter: D<sub>i</sub> = 150 mm

Material: Sealing ring of Bearing Steel  
Square ring of NBR



Dimensions and Part Number see Table VII, page 15.  
Materials see page 4.



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