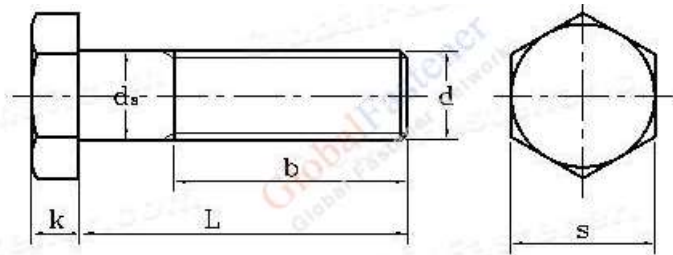
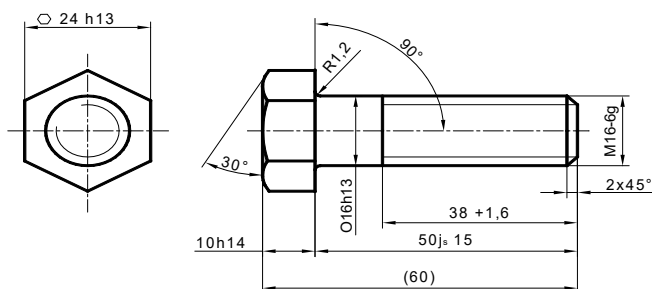


Bolt with hexagonal head



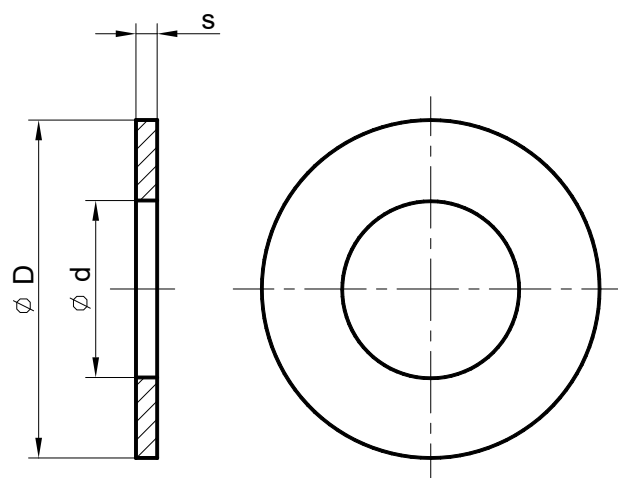
Unit: mm

d	M5	M6	M8	M10	M12	M16	M20	M24	M27	M30	M33	M36	M39	M42	M45	M48	M52
L ≤ 125	16	18	22	26	30	38	46	54	60	66	72	78	84	90	96	102	/
b 125 < L ≤ 200	/	/	28	32	36	44	52	60	66	72	78	84	90	96	102	108	116
200 < L	/	/	/	/	/	57	65	73	79	85	91	97	103	109	115	121	129
k	3.5	4	5.5	7	8	10	13	15	17	19	21	23	25	26	28	30	33
s	8	10	13	17	19	24	30	36	41	46	50	55	60	65	70	75	80
L	Weight of per 1000 steel products ≈ kg																
16	4.48	7.42	15.9	32.1													
20	5.98	8.12	17.1	34.1	48.9												
25	6.6	8.97	18.7	36.6	52.5												
30	7.37	10.1	20.7	39.1	56.1	107	186										
35	8.04	11.2	22.7	42.2	59.7	114	196										
40	8.81	12.3	24.7	45.3	64.1	121	207	347									
45	9.58	13.4	26.7	48.4	69.5	128	217	362									
50	10.3	14.5	28.7	51.5	72.9	136	227	377									
55		15.6	30.7	54.6	77.3	144	238	392									
60		16.7	32.7	57.7	81.7	152	251	407	570								
65		17.8	34.7	60.8	86.1	160	264	422	589								
70		18.9	36.7	63.9	90.5	168	277	440	608								
75		20	38.7	67	95	176	290	458	630								
80		21.1	40.7	70.1	100	182	303	476	653	853	1090						
90			44.7	76.3	109	198	329	511	698	906	1150						
100			48.7	82.5	118	214	355	547	743	963	1220	1520	1870				
110				88.7	127	230	381										
120				94.9	136	246	407	618	833	1070	1350	1660	2060	2450			
130				101	145	262	433										
140				107	154	278	459	689	923	1180	1480	1840	2250	2670	3160		
150				113	163	294	485	725	968	1230	1550	1920	2340	2780	3260	3860	
160				119	172	310	501	760	1010	1290	1620	2000	2430	2890	3400	4000	
170				125	181	326	527										
180				131	190	342	553	831	1100	1400	1750	2160	2620	3110	3650	4280	5130
190				137	199	358	579										
200				143	208	374	605	902	1190	1510	1880	2320	2810	3330	3900	4660	5460



BOLT M16 x 50 STN 02 1101

Flat Washer



Size	Dimension	d	D	s	kgs/M.pcs
M3		3.2	7	0.5	0.119
M4		4.3	9	0.8	0.308
M5		5.3	10	1	0.443
M6		6.4	12	1.6	1.020
M7		7.4	14	1.6	1.390
M8		8.4	16	1.6	1.830
M10		10.5	20	2	3.570
M12		13	24	2.5	6.270
M14		15	28	2.5	8.620
M16		17	30	3	11.300
M18		19	34	3	14.700
M20		21	37	3	17.200
M22		23	39	3	18.300
M24		25	44	4	32.300
M27		28	50	4	42.300
M30		31	56	4	53.600
M33		34	60	5	75.300
M36		37	66	5	92.100
M39		40	72	6	133.000
M42		43	78	7	183.000
M45		46	85	7	220.000
M48		50	92	8	294.000
M52		54	98	8	330.000
M56		58	105	9	425.000

WASHER d STN 02 1702

Oil seal, shaft seals, oil seals

Shaft seals also known as shaft sealing rings, oil seals, simmering, lip seal, simmerink, shaft washers and oil rings are sealing elements designed for the sealing of rotating shafts and other parts of machines. Shaft GUFERO® sealing ring is reinforced with a metal ring and equipped with a tensioning spring. In some types, however, an oil seal without a spring or metal ring is used.

GUFERO- shaft seal versions

G - without duster

GP - with duster

GUFERO® shaft seal types

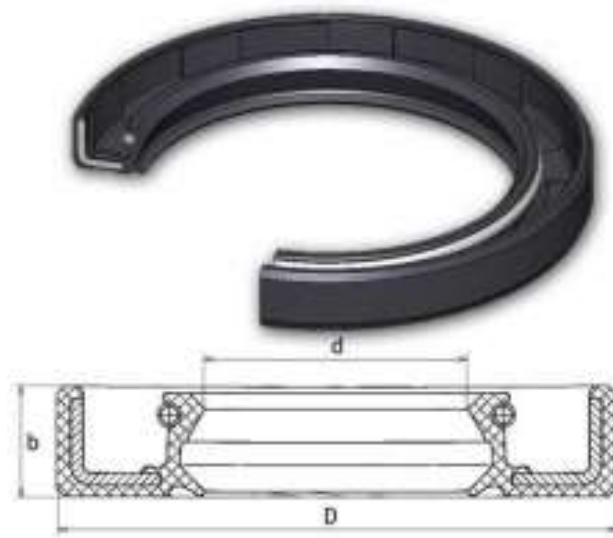
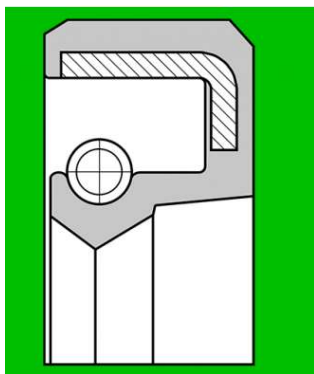
DL - left-handed rib profile of the seal surface of GUFERO® shaft seals

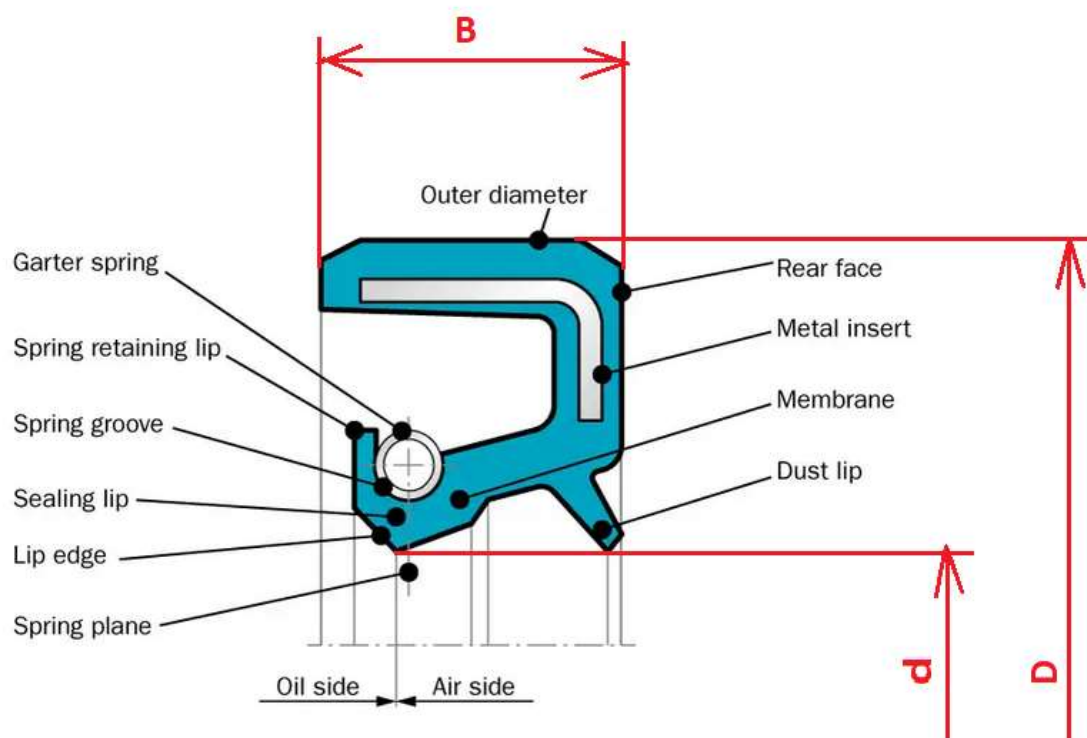
DP - right-handed rib profile of the seal surface of the GUFERO® shaft seals

DS – double-sided hydrodynamic type of the seal surface of the GUFERO® shaft seals

V - wave-type of the external surface of the GUFERO® shaft seals

AV - wave-type version of the partially rubber-coated external surface of the GUFERO® shaft seals





Rozmery v mm

d	D	B ±0,2	d	D	B ±0,2	d	D	B ±0,2
10	22	8	36	55	8	68	90	13
12	25	7	38	60	12	70	90	
14	30	10	40	60		72	100	
15	35		42	62		75	100	
16	35		45	65		78	100	
17	35		48	72		80	100	
18	35		50	75		85	110	
20	40		52	78		90	120	
22	40		55	78		95	125	
24	47		56	72		100	125	
25	47		58	80	13	105	140	
28	47	12	60	80		110	140	
30	50		62	90		115	150	14
32	50		63	85	12	120	160	15
35	52		65	90	13	125	160	15

OIL SEAL (GUERO) d x D x B STN 02 9401