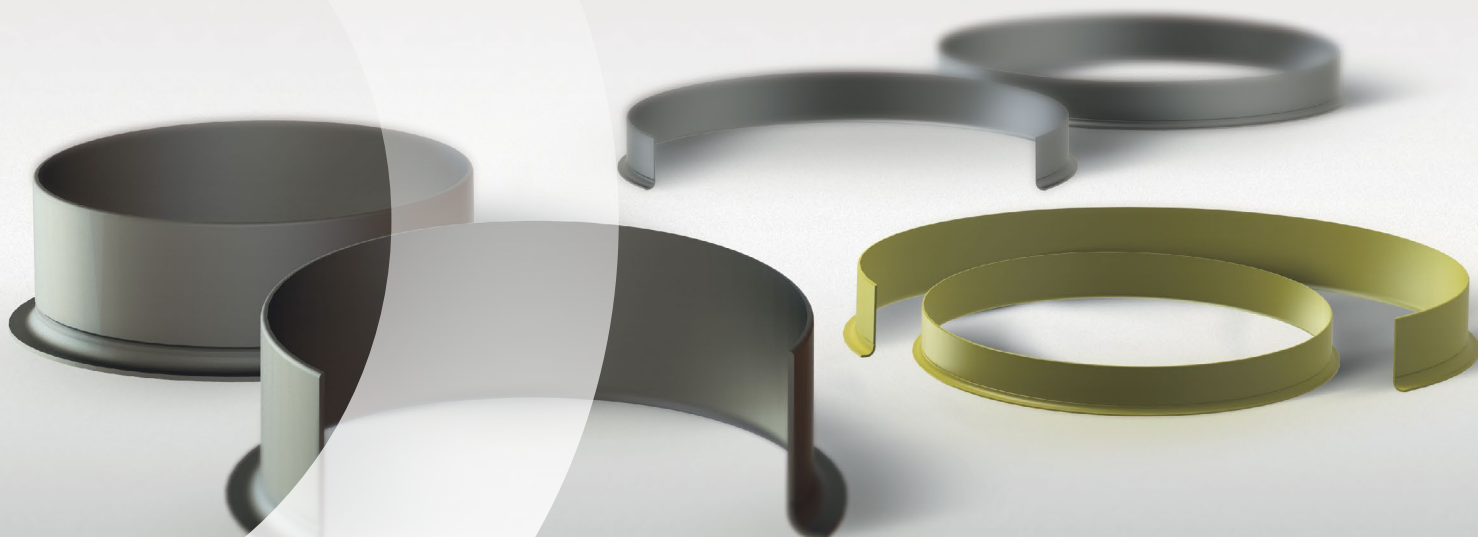


AUTOMOTIVE | AEROSPACE | FOOD & BEVERAGE | FLUID TECHNOLOGIES | MOBILE MACHINERY

FRANCEJOINT

SEALING SYSTEMS



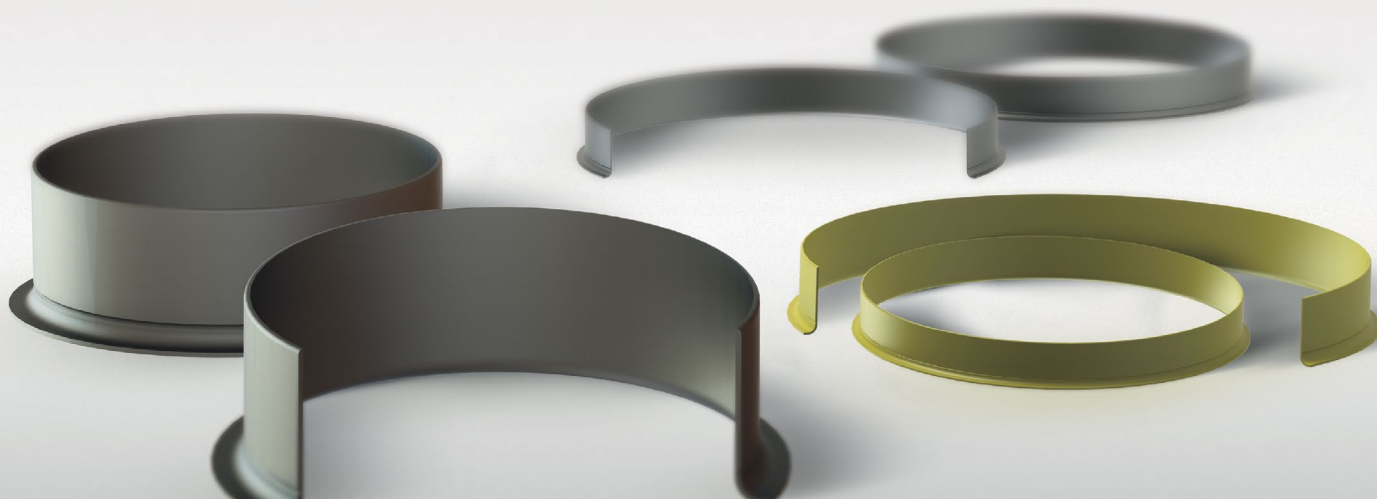
SLEEVES





FRANCEJOINT

SEALING SYSTEMS



○ SLEEVES

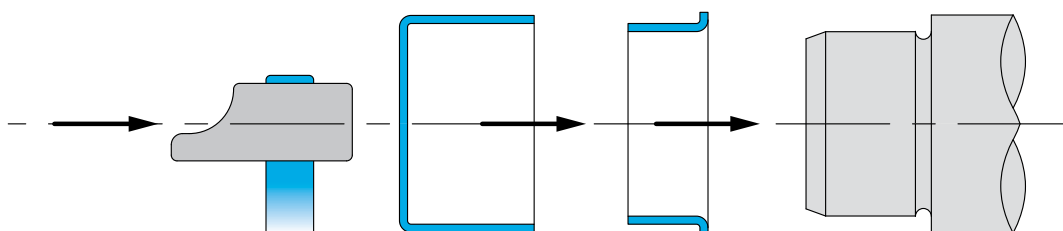
1. Introduction

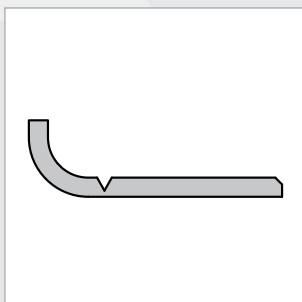
Sleeves are an efficient and cost-effective solution to wear problems on the shaft. Press-fitted onto the shaft, the sleeves meet the hardness and surface roughness constraints and the dimensions of the rotary seal in contact do not need to be reviewed. We provide both standard sleeves and sleeves that are suitable for use in highly corrosive environments.

2. Assembly recommendations

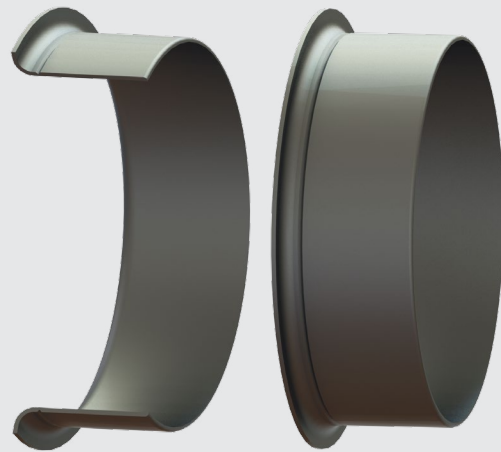
Please refer to the instructions below to correctly fit the sleeves:

- Clean the soiled areas of the shaft at the point of contact with the sealing lip of the ring. File down all burrs or rough areas to ensure that the sleeve does not prematurely deteriorate when fitted in a groove or any other part.
- Using a calliper, measure the diameter of the shaft in 3 different positions and check that the average over these 3 measurements indicates a value that complies with the recommended dimensional range. If that is the case, the sleeve will have a sufficiently tight fit on the shaft to prevent any possible sliding.
- Determine and mark where the sleeve must be positioned to cover the worn area, up to the end of the shaft.
- The shallow wear grooves do not need to be filled. It is, however, possible to apply a sealing product to the inside diameter of the sleeve. Clean off any surplus product.
- Deeper grooves can be filled with a metal-epoxy powder. Install the sleeve before the product hardens. Remove the surplus product.
- When mounting the sleeve, the mechanical body must be shut down.
- If the collar must be removed after installation, cut before installing part of the thinnest area using the outside diameter of the sleeve.
- Position the sleeve in the mounting tool; it must be inserted into the shaft in its entirety. Use a mallet to tap on its centre, until the sleeve covers the worn shaft. Ensure that the mounting tool is dimensionally compatible, so as to insert the sleeve without distorting it.
- Ensure that the outside of the sleeve has not been damaged during fitting. Its surface roughness and its cleanliness are two elements that determine the correct operation of the seal.
- The length of the sleeve must not exceed the full length of the shaft, excluding the chamfer.





SLEEVES BECA 810



DESCRIPTION

The BECA 810 profile is a standard stainless steel sleeve.

ADVANTAGES

- Good corrosion resistance
- Good chemical inertia
- Extremely thin, no need to modify the dimensions of the shaft seal
- Easy to fit

APPLICATIONS

- Hubs
- Pinions
- Differentials
- Gear boxes
- Crankshafts

MATERIALS

Material

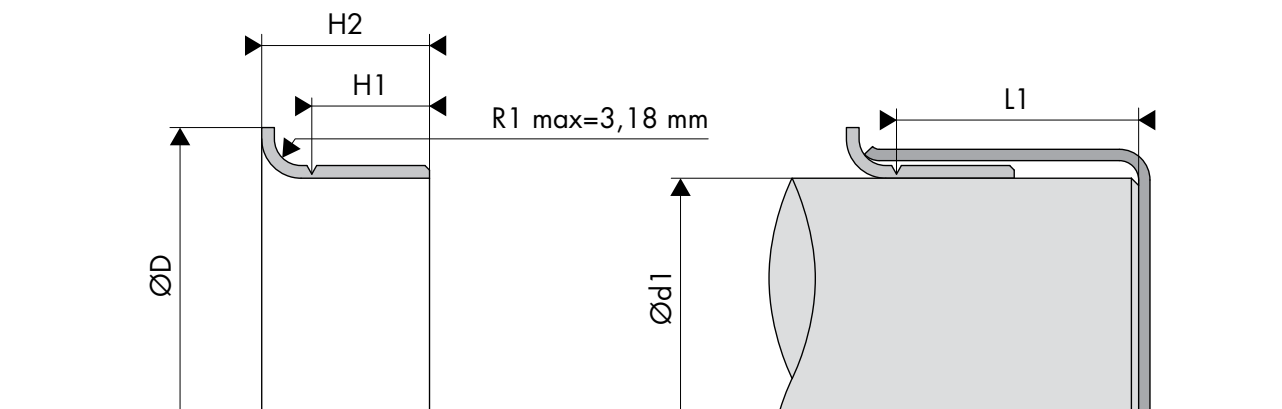
Stainless steel - AISI 304

Hardness

More than 220 HV (95 HRB)

Thickness

0.28 mm (0/-0.05)



DIMENSIONS

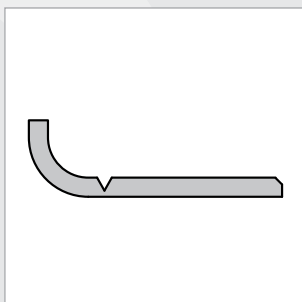
Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
810.0119905	11.99	12.07	11.99	15.49	5.99	8.41	47.63
810.0127006	12.65	12.75	12.70	15.49	6.35	8.74	50.80
810.0140006	13.89	14.00	14.00	19.05	6.35	9.93	46.51
810.0143006	14.22	14.38	14.30	19.05	6.35	9.93	46.51
810.0150105	14.96	15.06	15.01	19.05	5.00	8.99	47.29
810.0158807	15.82	15.93	15.88	19.05	7.95	10.31	50.80
810.0160007	15.90	16.00	16.00	18.24	7.95	11.13	50.80
810.0169908	16.94	17.04	16.99	22.23	8.00	11.00	50.80
810.0173707	17.32	17.42	17.37	22.86	7.95	11.13	50.80
810.0180108	17.88	18.01	18.01	24.43	8.00	11.00	46.00
810.0190507	19.00	19.10	19.05	24.00	7.95	11.13	50.80
810.0193007	19.28	19.33	19.30	23.83	7.95	11.13	50.80
810.0198407	19.81	19.91	19.84	23.75	7.95	11.13	50.80
810.0199908	19.94	20.04	19.99	23.62	8.00	11.00	50.80

Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
810.0206509	20.62	20.70	20.65	30.18	9.53	14.30	76.20
810.0218206	21.77	21.87	21.82	29.34	6.35	9.53	50.80
810.0220006	21.87	22.00	22.00	30.18	6.58	9.12	47.14
810.0220008	21.87	22.00	22.00	30.18	8.00	11.99	46.02
810.0222307	22.17	22.28	22.23	27.79	7.95	11.13	50.80
810.0231107	23.06	23.16	23.11	30.94	7.95	11.13	46.91
810.0240007	23.88	24.00	24.00	28.70	7.95	11.13	50.80
810.0246107	24.54	24.64	24.61	28.70	7.95	11.13	50.80
810.0246115	24.54	24.64	24.61	28.70	15.88	18.26	50.80
810.0249907	24.94	25.04	24.99	33.02	7.95	11.00	50.80
810.0254007	25.35	25.45	25.40	30.96	7.95	11.13	50.80
810.0260108	25.88	26.01	26.01	33.35	8.00	11.99	46.05
810.0270007	26.92	27.03	27.00	33.53	7.95	11.13	46.81
810.0276607	27.61	27.71	27.66	35.71	7.95	11.13	15.88
810.0279909	27.94	28.04	27.99	34.93	9.53	12.70	46.81
810.0285807	28.52	28.63	28.58	38.10	7.95	11.13	17.48
810.0285809	28.52	28.63	28.58	38.10	9.53	12.70	17.48
810.0293609	29.31	29.41	29.36	34.29	9.53	12.70	17.48
810.0298507	29.79	29.92	29.85	35.56	7.95	11.13	17.48
810.0300008	29.95	30.07	30.00	35.56	8.00	11.00	17.48
810.0301807	30.10	30.23	30.18	35.56	7.95	11.13	17.48
810.0309607	30.89	31.04	30.96	39.70	7.95	11.00	15.88
810.0315008	31.42	31.57	31.50	39.12	8.00	11.13	17.48
810.0317507	31.67	31.83	31.75	38.10	7.95	11.13	17.48
810.0320008	31.93	32.08	32.00	38.10	8.00	11.13	17.48
810.0329915	32.94	33.05	32.99	40.49	15.01	18.01	25.40
810.0333512	33.27	33.43	33.35	40.49	12.70	15.88	20.65
810.0333506	33.22	33.38	33.35	40.64	6.35	9.53	20.65
810.0340112	33.86	34.01	34.01	41.28	12.70	15.88	20.65
810.0349307	34.82	34.98	34.93	41.61	7.95	11.13	20.65
810.0349312	34.82	34.98	34.93	41.61	12.70	15.88	20.65
810.0349313	34.93	35.08	34.93	41.61	13.00	16.00	20.65
810.0359913	35.84	35.99	35.99	45.24	13.00	16.99	24.99
810.0365309	36.45	36.60	36.53	45.24	9.53	12.70	25.81
810.0365314	36.37	36.53	36.53	45.24	14.30	17.48	25.81
810.0380013	37.85	38.00	38.00	45.24	13.00	16.99	24.99
810.0381009	38.02	38.18	38.10	45.24	9.53	12.70	25.81
810.0381014	38.02	38.18	38.10	45.24	14.30	17.48	25.81
810.0386811	38.61	38.76	38.68	47.22	11.13	14.30	25.81
810.0394211	39.34	39.50	39.42	47.22	11.13	14.30	25.81
810.0396714	39.60	39.75	39.67	47.22	14.30	17.48	25.81
810.0398515	39.78	39.93	39.85	47.22	15.88	19.05	25.81
810.0400109	39.85	40.01	40.01	46.99	9.91	12.93	25.40
810.0400813	39.93	40.08	40.08	46.99	13.00	16.00	25.98
810.0407712	40.69	40.84	40.77	49.23	12.70	16.28	25.40
810.0410012	40.84	41.00	41.00	49.23	12.70	15.88	25.81
810.0412807	41.20	41.35	41.28	47.63	7.95	11.13	25.81
810.0412814	41.20	41.35	41.28	47.63	14.30	17.48	20.65
810.0419111	41.83	42.01	41.91	53.01	11.30	14.50	21.49
810.0419114	41.83	42.01	41.91	53.01	14.30	17.50	21.01
810.0420114	41.83	42.01	42.01	53.01	14.30	17.50	21.01
810.0420613	41.99	42.14	42.06	53.01	13.97	17.50	21.01
810.0428807	42.80	42.95	42.88	48.41	7.95	11.13	22.23
810.0428814	42.77	42.93	42.88	48.41	14.30	17.48	22.23
810.0430012	42.85	43.00	43.00	48.41	12.70	15.88	21.44
810.0436614	43.56	43.71	43.66	51.59	14.30	17.48	20.65
810.0441709	44.09	44.25	44.17	52.40	9.53	12.70	20.65
810.0444509	44.37	44.53	44.45	52.20	9.53	12.70	20.65
810.0444513	44.37	44.53	44.45	52.40	13.49	15.88	22.30
810.0444514	44.37	44.53	44.45	52.40	14.30	17.48	20.65
810.0444519	44.37	44.53	44.45	52.40	19.05	22.23	20.65
810.0448614	44.73	44.88	44.86	52.40	14.30	17.48	20.65

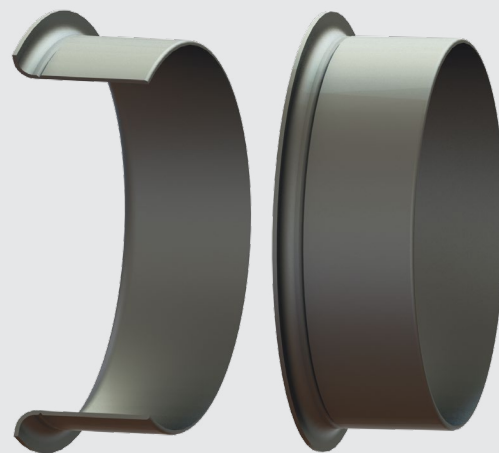
Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
810.0450114	44.93	45.09	45.01	53.01	14.00	16.99	20.62
810.0452416	45.16	45.31	45.24	53.98	16.94	20.32	26.97
810.0460514	45.95	46.10	46.05	53.09	14.30	17.48	25.40
810.0472214	47.17	47.32	47.22	54.76	14.30	17.48	25.40
810.0474522	47.40	47.55	47.45	55.58	22.58	26.04	25.40
810.0476304	47.55	47.70	47.63	55.96	4.45	7.49	18.90
810.0476307	47.55	47.70	47.63	55.96	7.49	10.54	18.90
810.0476309	47.55	47.70	47.63	55.96	9.53	13.11	26.67
810.0476314	47.55	47.70	47.63	55.96	14.30	17.48	25.40
810.0480314	47.93	48.08	48.03	56.01	14.00	16.97	24.99
810.0485609	48.49	48.64	48.56	56.36	9.53	12.70	25.40
810.0492314	49.12	49.28	49.23	56.36	14.30	17.48	25.40
810.0500114	49.91	50.06	50.01	57.00	14.00	16.97	24.99
810.0502914	50.22	50.37	50.29	58.75	14.30	17.88	26.67
810.0508014	50.72	50.88	50.80	61.11	14.30	17.48	25.55
810.0508022	50.72	50.88	50.80	61.11	22.23	25.40	25.40
810.0519912	51.82	51.99	51.99	62.71	12.70	15.88	34.52
810.0524019	52.25	52.40	52.40	62.71	19.84	23.83	34.93
810.0539812	53.92	54.05	53.98	61.52	12.70	19.05	32.54
810.0539819	53.95	54.10	53.98	61.52	19.84	23.83	34.93
810.0549919	54.91	55.07	54.99	62.00	19.99	22.99	31.75
810.0555819	55.52	55.68	55.58	63.50	19.84	23.83	33.35
810.0560112	55.83	56.01	56.01	64.29	12.70	15.88	33.35
810.0560119	55.83	56.01	56.01	64.29	19.79	23.77	80.01
810.0566412	56.57	56.72	56.64	64.29	12.70	15.88	33.35
810.0566419	56.57	56.72	56.64	64.29	19.84	23.01	31.75
810.0569019	56.82	56.97	56.90	65.10	19.41	22.86	31.75
810.0571507	57.12	57.28	57.15	64.29	7.95	11.13	33.35
810.0571519	57.12	57.28	57.15	64.29	19.84	23.83	33.35
810.0579919	57.91	58.06	57.99	65.99	19.99	23.83	34.93
810.0587519	58.65	58.80	58.75	68.28	19.84	23.83	34.93
810.0591319	59.11	59.26	59.13	69.85	19.05	22.23	38.10
810.0599909	59.92	60.07	59.99	70.74	9.40	11.43	37.36
810.0599919	59.92	60.07	59.99	70.74	19.99	22.99	34.93
810.0603313	60.30	60.45	60.33	69.85	13.36	17.35	34.93
810.0603315	60.25	60.40	60.33	69.85	15.09	19.05	34.93
810.0603319	60.25	60.40	60.33	69.85	19.84	23.83	34.93
810.0619312	61.85	62.00	61.93	71.83	12.70	15.88	36.20
810.0619319	61.82	62.00	61.93	71.83	19.84	23.83	35.38
810.0620012	61.82	62.00	62.00	71.83	12.70	15.88	36.20
810.0633019	63.22	63.37	63.30	73.03	19.84	23.83	35.38
810.0635014	63.42	63.58	63.50	71.63	14.10	16.51	22.61
810.0635019	63.42	63.58	63.50	71.63	19.84	23.83	34.93
810.0635012	63.50	63.65	63.50	71.83	12.70	16.66	35.38
810.0639119	63.75	63.91	63.91	71.83	19.84	23.01	36.53
810.0650019	64.92	65.07	65.00	72.39	19.99	22.99	34.93
810.0651019	65.02	65.18	65.10	73.43	19.84	23.83	34.93
810.0659919	65.91	66.07	65.99	75.95	19.84	23.83	31.75
810.0665719	66.50	66.65	66.57	77.39	19.84	23.83	34.93
810.0666812	66.60	66.75	66.68	77.39	12.70	15.88	34.93
810.0666819	66.57	66.73	66.68	77.39	19.84	23.01	34.93
810.0680019	67.82	68.00	68.00	79.38	19.05	22.23	42.88
810.0693419	69.27	69.42	69.34	79.38	19.84	23.01	33.35
810.0696719	69.60	69.75	69.67	77.85	19.84	23.83	31.75
810.0698536	69.77	69.93	69.85	78.11	36.53	41.28	41.28
810.0698510	69.85	70.00	69.85	79.38	10.31	14.30	31.75
810.0698519	69.72	69.88	69.85	79.38	19.84	23.83	31.75
810.0698528	69.72	69.88	69.85	79.38	28.58	31.75	33.32
810.0700019	69.93	70.08	70.00	79.38	19.99	24.00	31.75
810.0714515	71.35	71.50	71.45	80.98	15.09	17.48	31.75
810.0720119	71.83	72.01	72.01	81.92	19.05	22.23	34.11
810.0720912	72.09	72.24	72.09	81.92	12.70	16.66	31.75
810.0728719	72.80	72.95	72.87	80.98	19.84	23.83	31.75
810.0730319	72.97	73.13	73.03	81.76	19.84	23.83	31.75
810.0746312	74.60	74.75	74.63	84.94	12.70	16.28	33.81

Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
810.0746319	74.60	74.75	74.63	84.94	19.84	23.83	33.35
810.0746819	74.60	74.75	74.68	84.94	19.84	23.83	33.35
810.0750115	74.93	75.08	75.01	83.13	15.09	17.53	27.51
810.0750122	74.93	75.08	75.01	83.95	22.00	26.01	33.35
810.0755420	75.49	75.59	75.54	82.17	20.65	25.40	31.75
810.0760220	75.49	75.59	76.02	85.09	20.65	25.40	32.54
810.0760212	75.95	76.10	76.02	85.32	12.29	15.88	33.81
810.0760214	75.95	76.10	76.02	85.32	14.30	17.48	34.93
810.0762020	75.95	76.10	76.20	82.17	20.65	25.40	32.54
810.0762015	76.20	76.35	76.20	84.96	15.88	20.65	32.51
810.0764812	76.40	76.56	76.48	85.22	12.70	15.88	50.80
810.0780019	77.83	78.00	78.00	88.09	19.05	22.23	52.22
810.0793814	79.35	79.55	79.38	89.54	14.00	18.01	51.59
810.0793817	79.25	79.40	79.38	89.69	17.48	20.65	50.80
810.0793820	79.25	79.40	79.38	89.69	20.65	25.40	50.80
810.0800119	79.81	80.01	80.01	89.92	19.05	22.50	34.93
810.0800111	79.91	80.09	80.01	89.99	11.00	15.01	34.93
810.0800121	79.91	80.09	80.01	89.99	21.01	24.00	34.93
810.0819916	81.92	82.07	81.99	91.06	16.76	21.54	44.45
810.0825515	82.55	82.70	82.55	90.81	15.11	18.26	34.93
810.0825517	82.55	82.70	82.55	91.06	17.48	22.23	31.75
810.0825520	82.55	82.70	82.55	91.06	20.65	25.40	34.93
810.0840720	84.00	84.15	84.07	93.68	20.65	25.40	34.93
810.0848916	84.76	85.01	84.89	93.98	16.99	21.01	35.00
810.0848921	84.76	85.01	84.89	93.98	21.01	24.99	35.00
810.0850110	84.79	85.01	85.01	90.93	10.13	12.67	36.35
810.0857309	85.67	85.83	85.73	93.68	9.53	12.70	35.81
810.0857320	85.67	85.83	85.73	93.85	20.65	25.40	34.93
810.0873319	87.25	87.40	87.33	97.64	19.84	23.01	35.71
810.0880029	87.80	88.00	88.00	95.28	29.21	34.27	42.50
810.0883919	88.32	88.47	88.39	97.41	19.84	23.01	35.71
810.0889007	88.90	89.05	88.90	97.16	7.95	12.70	34.21
810.0889015	88.82	88.98	88.90	97.64	15.88	20.65	34.21
810.0889020	88.82	88.98	88.90	97.64	20.65	25.40	34.21
810.0890015	88.93	89.08	89.00	97.64	15.88	20.65	34.24
810.0899911	89.92	90.07	89.99	101.60	11.13	13.67	46.05
810.0899913	89.92	90.07	89.99	101.60	13.36	16.94	44.45
810.0899918	89.92	90.07	89.99	101.60	18.03	23.01	46.05
810.0899923	89.92	90.07	89.99	101.60	23.01	27.99	44.45
810.0905020	90.42	90.58	90.50	99.06	20.65	25.40	44.45
810.0919720	91.90	92.05	91.97	102.39	20.65	25.40	44.45
810.0920812	92.02	92.18	92.08	102.24	12.70	15.88	44.45
810.0920820	92.02	92.18	92.08	102.39	20.65	25.40	44.45
810.0936820	93.60	93.75	93.68	102.24	20.65	23.83	45.72
810.0936807	93.57	93.73	93.68	102.39	7.95	11.13	22.23
810.0947411	94.67	94.82	94.74	102.01	11.91	15.09	45.72
810.0947419	94.67	94.82	94.74	102.24	19.84	23.01	45.72
810.0950021	94.92	95.07	95.00	102.24	21.01	24.00	45.72
810.0950708	95.00	95.15	95.07	102.39	8.74	12.70	45.72
810.0950711	95.00	95.15	95.07	102.49	11.91	15.09	45.72
810.0952214	95.15	95.30	95.22	102.24	14.30	17.48	45.72
810.0952517	95.25	95.40	95.25	102.11	17.48	22.23	45.72
810.0953317	95.25	95.40	95.33	102.11	17.48	22.23	45.72
810.0953308	95.25	95.40	95.33	102.24	8.74	12.70	45.72
810.0983220	98.25	98.40	98.32	106.30	20.65	25.40	47.63
810.0984320	98.37	98.53	98.43	107.16	20.65	25.40	47.63
810.1000320	99.95	100.10	100.03	109.55	20.65	25.40	52.07
810.1016001	101.55	101.75	101.60	111.13	12.70	15.88	52.48
810.1016002	101.55	101.75	101.60	111.13	20.65	25.40	52.07
810.1039901	103.89	104.09	103.99	112.73	19.99	24.00	35.99
810.1047802	104.70	104.90	104.78	113.54	20.65	25.40	34.93
810.1050001	104.90	105.11	105.00	113.54	19.99	23.19	35.00
810.1063802	106.25	106.45	106.38	114.30	20.65	25.40	34.93
810.1075401	107.34	107.54	107.54	117.09	19.84	23.01	36.53
810.1079502	107.90	108.10	107.95	117.09	20.65	25.40	36.53

Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
810.1099301	109.91	110.11	109.93	124.99	12.93	16.51	31.75
810.1100101	109.78	110.01	110.01	124.99	11.38	14.96	32.94
810.1111302	111.00	111.20	111.13	120.65	20.65	25.40	41.91
810.1119901	111.79	111.99	111.99	120.65	19.05	22.50	33.02
810.1127302	112.62	112.83	112.73	122.25	25.40	29.01	33.35
810.1143002	114.20	114.40	114.30	123.19	20.65	25.40	31.75
810.1150102	114.88	115.09	115.01	127.00	20.65	23.83	31.75
810.1174801	117.37	117.58	117.48	127.00	11.13	15.88	34.93
810.1174802	117.37	117.58	117.48	128.60	25.40	31.75	34.93
810.1190802	119.00	119.20	119.08	128.60	20.65	25.40	34.93
810.1199908	119.89	120.09	119.99	129.79	8.00	11.00	33.60
810.1199901	119.89	120.09	119.99	129.79	19.99	24.99	32.00
810.1206501	120.55	120.75	120.65	127.00	12.70	19.05	38.10
810.1220001	121.89	122.10	122.00	131.50	19.99	24.00	32.00
810.1230101	122.91	123.11	123.01	132.82	19.99	24.99	31.60
810.1238301	123.72	123.93	123.83	133.35	15.88	19.05	36.53
810.1249901	124.89	125.10	124.99	137.16	10.01	14.00	36.53
810.1249902	124.89	125.10	124.99	137.16	26.01	32.00	36.53
810.1270002	124.89	125.10	127.00	136.91	20.65	25.40	36.53
810.1270001	126.95	127.15	127.00	137.16	13.72	17.30	36.53
810.1280002	127.80	128.00	128.00	135.26	29.21	34.27	40.30
810.1299001	129.79	130.00	129.90	139.52	19.05	23.83	30.00
810.1300002	129.97	130.18	130.00	139.52	22.00	25.30	32.51
810.1301802	130.05	130.25	130.18	139.70	20.65	25.40	31.75
810.1333502	133.25	133.45	133.35	141.22	20.65	25.40	31.75
810.1349002	134.80	135.00	134.90	145.67	20.50	25.40	31.75
810.1365302	136.42	136.63	136.53	149.23	20.65	25.40	31.75
810.1381303	138.02	138.23	138.13	146.05	38.10	42.88	47.63
810.1390901	138.99	139.19	139.09	149.86	14.30	19.05	31.34
810.1397001	139.65	139.85	139.70	150.83	13.16	17.91	31.75
810.1397002	139.65	139.85	139.70	150.83	20.65	25.40	31.75
810.1400002	139.90	140.11	140.00	151.00	20.50	25.40	31.75
810.1428802	142.77	142.98	142.88	157.18	22.23	25.40	46.02
810.1450101	144.75	145.01	145.01	154.94	19.05	22.23	46.02
810.1456401	145.44	145.64	145.64	154.94	14.30	19.05	49.23
810.1460502	145.95	146.15	146.05	156.97	20.65	25.40	44.45
810.1492302	149.12	149.33	149.23	157.18	25.40	31.75	33.35
810.1499902	149.76	150.01	149.99	159.00	26.01	30.00	32.51
810.1508302	150.72	150.93	150.83	161.93	25.40	28.58	47.63
810.1524001	152.27	152.48	152.40	161.54	12.70	19.05	44.45
810.1524002	152.27	152.48	152.40	161.93	25.40	31.75	44.45
810.1540002	153.87	154.13	154.00	161.93	26.01	30.00	32.99
810.1548602	154.74	154.99	154.86	167.01	26.01	30.00	32.99
810.1575602	157.43	157.68	157.56	168.28	20.65	27.00	44.45
810.1587502	158.62	158.88	158.75	168.28	26.19	31.75	44.45
810.1599902	159.74	159.99	159.99	171.45	25.40	31.75	34.93
810.1651002	164.97	165.23	165.10	177.80	25.40	31.75	34.93
810.1698803	169.75	170.00	169.88	182.58	31.75	38.00	44.45
810.1714502	171.32	171.58	171.45	180.98	20.65	27.00	44.45
810.1750102	174.75	175.01	175.01	186.99	27.99	32.00	35.00
810.1778002	177.67	177.93	177.80	189.87	25.40	31.75	42.88
810.1800103	179.76	180.01	180.01	190.50	32.99	38.00	44.50
810.1841503	184.00	184.25	184.15	197.10	31.75	38.10	55.25
810.1848603	184.73	184.99	184.86	197.10	32.00	38.00	54.99
810.1893102	189.08	189.33	189.31	199.64	20.65	25.40	31.75
810.1905002	190.37	190.63	190.50	200.03	20.65	25.40	31.75
810.1968502	196.72	196.98	196.85	210.06	25.40	33.35	47.63
810.2000303	199.87	200.13	200.03	212.73	34.52	38.10	44.45
810.2016302	201.50	201.75	201.63	212.73	25.40	31.75	44.45
810.2032002	203.07	203.33	203.20	212.73	25.40	31.75	44.45



SLEEVES BECA 811



DESCRIPTION

The BECA 811 profile is a premium stainless steel sleeve with a hard chrome treatment.

ADVANTAGES

Good corrosion resistance
Good chemical inertia
Extremely thin, no need to modify the dimensions of the shaft seal
Easy to fit

APPLICATIONS

Hubs
Pinions
Differentials
Gear boxes
Crankshafts

MATERIALS

Material

Stainless steel - AISI 304

Coating

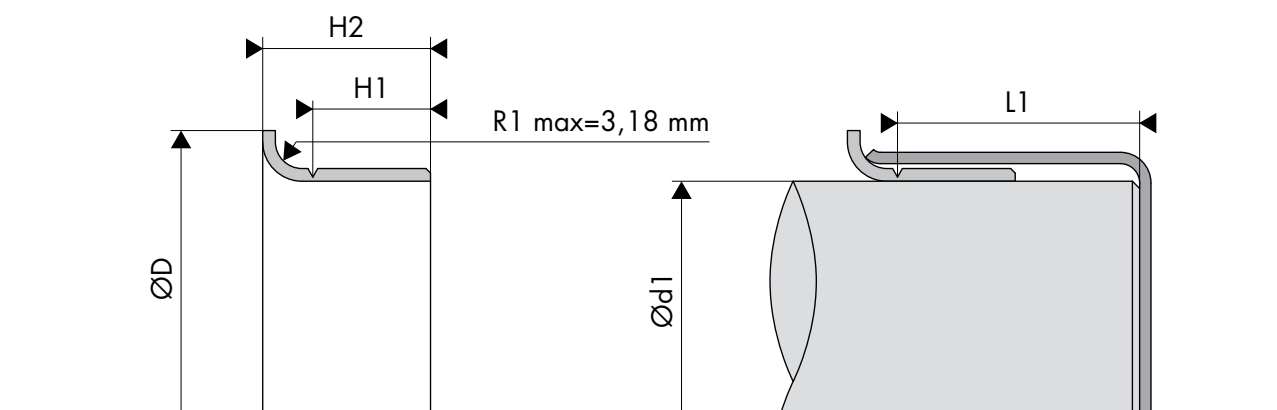
HEEF-25 hard chrome

Hardness

800 - 1100 HV (65 - 72 HRC)

Thickness

0.28 mm (+/-0.05)



DIMENSIONS

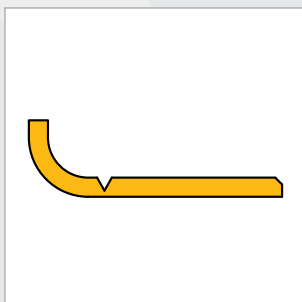
Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
811.0119905	11.99	12.07	11.99	15.49	5.99	8.41	47.63
811.0127006	12.65	12.75	12.70	15.49	6.35	8.74	50.80
811.0140006	13.89	14.00	14.00	19.05	6.35	9.93	46.51
811.0143006	14.22	14.38	14.30	19.05	6.35	9.93	46.51
811.0150105	14.96	15.06	15.01	19.05	5.00	8.99	47.29
811.0158807	15.82	15.93	15.88	19.05	7.95	10.31	50.80
811.0160007	15.90	16.00	16.00	18.24	7.95	11.13	50.80
811.0169908	16.94	17.04	16.99	22.23	8.00	11.00	50.80
811.0173707	17.32	17.42	17.37	22.86	7.95	11.13	50.80
811.0180108	17.88	18.01	18.01	24.43	8.00	11.00	46.00
811.0190507	19.00	19.10	19.05	24.00	7.95	11.13	50.80
811.0193007	19.28	19.33	19.30	23.83	7.95	11.13	50.80
811.0198407	19.81	19.91	19.84	23.75	7.95	11.13	50.80

Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
811.0199908	19.94	20.04	19.99	23.62	8.00	11.00	50.80
811.0206509	20.62	20.70	20.65	30.18	9.53	14.30	76.20
811.0218206	21.77	21.87	21.82	29.34	6.35	9.53	50.80
811.0220006	21.87	22.00	22.00	30.18	6.58	9.12	47.14
811.0220008	21.87	22.00	22.00	30.18	8.00	11.99	46.02
811.0222307	22.17	22.28	22.23	27.79	7.95	11.13	50.80
811.0231107	23.06	23.16	23.11	30.94	7.95	11.13	46.91
811.0240007	23.88	24.00	24.00	28.70	7.95	11.13	50.80
811.0246107	24.54	24.64	24.61	28.70	7.95	11.13	50.80
811.0246115	24.54	24.64	24.61	28.70	15.88	18.26	50.80
811.0249907	24.94	25.04	24.99	33.02	7.95	11.00	50.80
811.0254007	25.35	25.45	25.40	30.96	7.95	11.13	50.80
811.0260108	25.88	26.01	26.01	33.35	8.00	11.99	46.05
811.0270007	26.92	27.03	27.00	33.53	7.95	11.13	46.81
811.0276607	27.61	27.71	27.66	35.71	7.95	11.13	15.88
811.0279909	27.94	28.04	27.99	34.93	9.53	12.70	46.81
811.0285807	28.52	28.63	28.58	38.10	7.95	11.13	17.48
811.0285809	28.52	28.63	28.58	38.10	9.53	12.70	17.48
811.0293609	29.31	29.41	29.36	34.29	9.53	12.70	17.48
811.0298507	29.79	29.92	29.85	35.56	7.95	11.13	17.48
811.0300008	29.95	30.07	30.00	35.56	8.00	11.00	17.48
811.0301807	30.10	30.23	30.18	35.56	7.95	11.13	17.48
811.0309607	30.89	31.04	30.96	39.70	7.95	11.00	15.88
811.0315008	31.42	31.57	31.50	39.12	8.00	11.13	17.48
811.0317507	31.67	31.83	31.75	38.10	7.95	11.13	17.48
811.0320008	31.93	32.08	32.00	38.10	8.00	11.13	17.48
811.0329915	32.94	33.05	32.99	40.49	15.01	18.01	25.40
811.0333512	33.27	33.43	33.35	40.49	12.70	15.88	20.65
811.0333506	33.22	33.38	33.35	40.64	6.35	9.53	20.65
811.0340112	33.86	34.01	34.01	41.28	12.70	15.88	20.65
811.0349307	34.82	34.98	34.93	41.61	7.95	11.13	20.65
811.0349312	34.82	34.98	34.93	41.61	12.70	15.88	20.65
811.0349313	34.93	35.08	34.93	41.61	13.00	16.00	20.65
811.0359913	35.84	35.99	35.99	45.24	13.00	16.99	24.99
811.0365309	36.45	36.60	36.53	45.24	9.53	12.70	25.81
811.0365314	36.37	36.53	36.53	45.24	14.30	17.48	25.81
811.0380013	37.85	38.00	38.00	45.24	13.00	16.99	24.99
811.0381009	38.02	38.18	38.10	45.24	9.53	12.70	25.81
811.0381014	38.02	38.18	38.10	45.24	14.30	17.48	25.81
811.0386811	38.61	38.76	38.68	47.22	11.13	14.30	25.81
811.0394211	39.34	39.50	39.42	47.22	11.13	14.30	25.81
811.0396714	39.60	39.75	39.67	47.22	14.30	17.48	25.81
811.0398515	39.78	39.93	39.85	47.22	15.88	19.05	25.81
811.0400109	39.85	40.01	40.01	46.99	9.91	12.93	25.40
811.0400813	39.93	40.08	40.08	46.99	13.00	16.00	25.98
811.0407712	40.69	40.84	40.77	49.23	12.70	16.28	25.40
811.0410012	40.84	41.00	41.00	49.23	12.70	15.88	25.81
811.0412807	41.20	41.35	41.28	47.63	7.95	11.13	25.81
811.0412814	41.20	41.35	41.28	47.63	14.30	17.48	20.65
811.0419111	41.83	42.01	41.91	53.01	11.30	14.50	21.49
811.0419114	41.83	42.01	41.91	53.01	14.30	17.50	21.01
811.0420114	41.83	42.01	42.01	53.01	14.30	17.50	21.01
811.0420613	41.99	42.14	42.06	53.01	13.97	17.50	21.01
811.0428807	42.80	42.95	42.88	48.41	7.95	11.13	22.23
811.0428814	42.77	42.93	42.88	48.41	14.30	17.48	22.23
811.0430012	42.85	43.00	43.00	48.41	12.70	15.88	21.44
811.0436614	43.56	43.71	43.66	51.59	14.30	17.48	20.65
811.0441709	44.09	44.25	44.17	52.40	9.53	12.70	20.65
811.0444509	44.37	44.53	44.45	52.20	9.53	12.70	20.65
811.0444513	44.37	44.53	44.45	52.40	13.49	15.88	22.30
811.0444514	44.37	44.53	44.45	52.40	14.30	17.48	20.65
811.0444519	44.37	44.53	44.45	52.40	19.05	22.23	20.65

Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
811.0448614	44.73	44.88	44.86	52.40	14.30	17.48	20.65
811.0450114	44.93	45.09	45.01	53.01	14.00	16.99	20.62
811.0452416	45.16	45.31	45.24	53.98	16.94	20.32	26.97
811.0460514	45.95	46.10	46.05	53.09	14.30	17.48	25.40
811.0472214	47.17	47.32	47.22	54.76	14.30	17.48	25.40
811.0474522	47.40	47.55	47.45	55.58	22.58	26.04	25.40
811.0476304	47.55	47.70	47.63	55.96	4.45	7.49	18.90
811.0476307	47.55	47.70	47.63	55.96	7.49	10.54	18.90
811.0476309	47.55	47.70	47.63	55.96	9.53	13.11	26.67
811.0476314	47.55	47.70	47.63	55.96	14.30	17.48	25.40
811.0480314	47.93	48.08	48.03	56.01	14.00	16.97	24.99
811.0485609	48.49	48.64	48.56	56.36	9.53	12.70	25.40
811.0492314	49.12	49.28	49.23	56.36	14.30	17.48	25.40
811.0500114	49.91	50.06	50.01	57.00	14.00	16.97	24.99
811.0502914	50.22	50.37	50.29	58.75	14.30	17.88	26.67
811.0508014	50.72	50.88	50.80	61.11	14.30	17.48	25.55
811.0508022	50.72	50.88	50.80	61.11	22.23	25.40	25.40
811.0519912	51.82	51.99	51.99	62.71	12.70	15.88	34.52
811.0524019	52.25	52.40	52.40	62.71	19.84	23.83	34.93
811.0539812	53.92	54.05	53.98	61.52	12.70	19.05	32.54
811.0539819	53.95	54.10	53.98	61.52	19.84	23.83	34.93
811.0549919	54.91	55.07	54.99	62.00	19.99	22.99	31.75
811.0555819	55.52	55.68	55.58	63.50	19.84	23.83	33.35
811.0560112	55.83	56.01	56.01	64.29	12.70	15.88	33.35
811.0560119	55.83	56.01	56.01	64.29	19.79	23.77	80.01
811.0566412	56.57	56.72	56.64	64.29	12.70	15.88	33.35
811.0566419	56.57	56.72	56.64	64.29	19.84	23.01	31.75
811.0569019	56.82	56.97	56.90	65.10	19.41	22.86	31.75
811.0571507	57.12	57.28	57.15	64.29	7.95	11.13	33.35
811.0571519	57.12	57.28	57.15	64.29	19.84	23.83	33.35
811.0579919	57.91	58.06	57.99	65.99	19.99	23.83	34.93
811.0587519	58.65	58.80	58.75	68.28	19.84	23.83	34.93
811.0591319	59.11	59.26	59.13	69.85	19.05	22.23	38.10
811.0599909	59.92	60.07	59.99	70.74	9.40	11.43	37.36
811.0599919	59.92	60.07	59.99	70.74	19.99	22.99	34.93
811.0603313	60.30	60.45	60.33	69.85	13.36	17.35	34.93
811.0603315	60.25	60.40	60.33	69.85	15.09	19.05	34.93
811.0603319	60.25	60.40	60.33	69.85	19.84	23.83	34.93
811.0619312	61.85	62.00	61.93	71.83	12.70	15.88	36.20
811.0619319	61.82	62.00	61.93	71.83	19.84	23.83	35.38
811.0620012	61.82	62.00	62.00	71.83	12.70	15.88	36.20
811.0633019	63.22	63.37	63.30	73.03	19.84	23.83	35.38
811.0635014	63.42	63.58	63.50	71.63	14.10	16.51	22.61
811.0635019	63.42	63.58	63.50	71.63	19.84	23.83	34.93
811.0635012	63.50	63.65	63.50	71.83	12.70	16.66	35.38
811.0639119	63.75	63.91	63.91	71.83	19.84	23.01	36.53
811.0650019	64.92	65.07	65.00	72.39	19.99	22.99	34.93
811.0651019	65.02	65.18	65.10	73.43	19.84	23.83	34.93
811.0659919	65.91	66.07	65.99	75.95	19.84	23.83	31.75
811.0665719	66.50	66.65	66.57	77.39	19.84	23.83	34.93
811.0666812	66.60	66.75	66.68	77.39	12.70	15.88	34.93
811.0666819	66.57	66.73	66.68	77.39	19.84	23.01	34.93
811.0680019	67.82	68.00	68.00	79.38	19.05	22.23	42.88
811.0693419	69.27	69.42	69.34	79.38	19.84	23.01	33.35
811.0696719	69.60	69.75	69.67	77.85	19.84	23.83	31.75
811.0698536	69.77	69.93	69.85	78.11	36.53	41.28	41.28
811.0698510	69.85	70.00	69.85	79.38	10.31	14.30	31.75
811.0698519	69.72	69.88	69.85	79.38	19.84	23.83	31.75
811.0698528	69.72	69.88	69.85	79.38	28.58	31.75	33.32
811.0700019	69.93	70.08	70.00	79.38	19.99	24.00	31.75
811.0714515	71.35	71.50	71.45	80.98	15.09	17.48	31.75
811.0720119	71.83	72.01	72.01	81.92	19.05	22.23	34.11
811.0720912	72.09	72.24	72.09	81.92	12.70	16.66	31.75
811.0728719	72.80	72.95	72.87	80.98	19.84	23.83	31.75
811.0730319	72.97	73.13	73.03	81.76	19.84	23.83	31.75
811.0746312	74.60	74.75	74.63	84.94	12.70	16.28	33.81

Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
811.0746319	74.60	74.75	74.63	84.94	19.84	23.83	33.35
811.0746819	74.60	74.75	74.68	84.94	19.84	23.83	33.35
811.0750115	74.93	75.08	75.01	83.13	15.09	17.53	27.51
811.0750122	74.93	75.08	75.01	83.95	22.00	26.01	33.35
811.0755420	75.49	75.59	75.54	82.17	20.65	25.40	31.75
811.0760220	75.49	75.59	76.02	85.09	20.65	25.40	32.54
811.0760212	75.95	76.10	76.02	85.32	12.29	15.88	33.81
811.0760214	75.95	76.10	76.02	85.32	14.30	17.48	34.93
811.0762020	75.95	76.10	76.20	82.17	20.65	25.40	32.54
811.0762015	76.20	76.35	76.20	84.96	15.88	20.65	32.51
811.0764812	76.40	76.56	76.48	85.22	12.70	15.88	50.80
811.0780019	77.83	78.00	78.00	88.09	19.05	22.23	52.22
811.0793814	79.35	79.55	79.38	89.54	14.00	18.01	51.59
811.0793817	79.25	79.40	79.38	89.69	17.48	20.65	50.80
811.0793820	79.25	79.40	79.38	89.69	20.65	25.40	50.80
811.0800119	79.81	80.01	80.01	89.92	19.05	22.50	34.93
811.0800111	79.91	80.09	80.01	89.99	11.00	15.01	34.93
811.0800121	79.91	80.09	80.01	89.99	21.01	24.00	34.93
811.0819916	81.92	82.07	81.99	91.06	16.76	21.54	44.45
811.0825515	82.55	82.70	82.55	90.81	15.11	18.26	34.93
811.0825517	82.55	82.70	82.55	91.06	17.48	22.23	31.75
811.0825520	82.55	82.70	82.55	91.06	20.65	25.40	34.93
811.0840720	84.00	84.15	84.07	93.68	20.65	25.40	34.93
811.0848916	84.76	85.01	84.89	93.98	16.99	21.01	35.00
811.0848921	84.76	85.01	84.89	93.98	21.01	24.99	35.00
811.0850110	84.79	85.01	85.01	90.93	10.13	12.67	36.35
811.0857309	85.67	85.83	85.73	93.68	9.53	12.70	35.81
811.0857320	85.67	85.83	85.73	93.85	20.65	25.40	34.93
811.0873319	87.25	87.40	87.33	97.64	19.84	23.01	35.71
811.0880029	87.80	88.00	88.00	95.28	29.21	34.27	42.50
811.0883919	88.32	88.47	88.39	97.41	19.84	23.01	35.71
811.0889007	88.90	89.05	88.90	97.16	7.95	12.70	34.21
811.0889015	88.82	88.98	88.90	97.64	15.88	20.65	34.21
811.0889020	88.82	88.98	88.90	97.64	20.65	25.40	34.21
811.0890015	88.93	89.08	89.00	97.64	15.88	20.65	34.24
811.0899911	89.92	90.07	89.99	101.60	11.13	13.67	46.05
811.0899913	89.92	90.07	89.99	101.60	13.36	16.94	44.45
811.0899918	89.92	90.07	89.99	101.60	18.03	23.01	46.05
811.0899923	89.92	90.07	89.99	101.60	23.01	27.99	44.45
811.0905020	90.42	90.58	90.50	99.06	20.65	25.40	44.45
811.0919720	91.90	92.05	91.97	102.39	20.65	25.40	44.45
811.0920812	92.02	92.18	92.08	102.24	12.70	15.88	44.45
811.0920820	92.02	92.18	92.08	102.39	20.65	25.40	44.45
811.0936820	93.60	93.75	93.68	102.24	20.65	23.83	45.72
811.0936807	93.57	93.73	93.68	102.39	7.95	11.13	22.23
811.0947411	94.67	94.82	94.74	102.01	11.91	15.09	45.72
811.0947419	94.67	94.82	94.74	102.24	19.84	23.01	45.72
811.0950021	94.92	95.07	95.00	102.24	21.01	24.00	45.72
811.0950708	95.00	95.15	95.07	102.39	8.74	12.70	45.72
811.0950711	95.00	95.15	95.07	102.49	11.91	15.09	45.72
811.0952214	95.15	95.30	95.22	102.24	14.30	17.48	45.72
811.0952517	95.25	95.40	95.25	102.11	17.48	22.23	45.72
811.0953317	95.25	95.40	95.33	102.11	17.48	22.23	45.72
811.0953308	95.25	95.40	95.33	102.24	8.74	12.70	45.72
811.0983220	98.25	98.40	98.32	106.30	20.65	25.40	47.63
811.0984320	98.37	98.53	98.43	107.16	20.65	25.40	47.63
811.1000320	99.95	100.10	100.03	109.55	20.65	25.40	52.07
811.1016001	101.55	101.75	101.60	111.13	12.70	15.88	52.48
811.1016002	101.55	101.75	101.60	111.13	20.65	25.40	52.07
811.1039901	103.89	104.09	103.99	112.73	19.99	24.00	35.99
811.1047802	104.70	104.90	104.78	113.54	20.65	25.40	34.93
811.1050001	104.90	105.11	105.00	113.54	19.99	23.19	35.00
811.1063802	106.25	106.45	106.38	114.30	20.65	25.40	34.93
811.1075401	107.34	107.54	107.54	117.09	19.84	23.01	36.53
811.1079502	107.90	108.10	107.95	117.09	20.65	25.40	36.53
811.1099301	109.91	110.11	109.93	124.99	12.93	16.51	31.75

Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
811.1100101	109.78	110.01	110.01	124.99	11.38	14.96	32.94
811.1111302	111.00	111.20	111.13	120.65	20.65	25.40	41.91
811.1119901	111.79	111.99	111.99	120.65	19.05	22.50	33.02
811.1127302	112.62	112.83	112.73	122.25	25.40	29.01	33.35
811.1143002	114.20	114.40	114.30	123.19	20.65	25.40	31.75
811.1150102	114.88	115.09	115.01	127.00	20.65	23.83	31.75
811.1174801	117.37	117.58	117.48	127.00	11.13	15.88	34.93
811.1174802	117.37	117.58	117.48	128.60	25.40	31.75	34.93
811.1190802	119.00	119.20	119.08	128.60	20.65	25.40	34.93
811.1199908	119.89	120.09	119.99	129.79	8.00	11.00	33.60
811.1199901	119.89	120.09	119.99	129.79	19.99	24.99	32.00
811.1206501	120.55	120.75	120.65	127.00	12.70	19.05	38.10
811.1220001	121.89	122.10	122.00	131.50	19.99	24.00	32.00
811.1230101	122.91	123.11	123.01	132.82	19.99	24.99	31.60
811.1238301	123.72	123.93	123.83	133.35	15.88	19.05	36.53
811.1249901	124.89	125.10	124.99	137.16	10.01	14.00	36.53
811.1249902	124.89	125.10	124.99	137.16	26.01	32.00	36.53
811.1270002	124.89	125.10	127.00	136.91	20.65	25.40	36.53
811.1270001	126.95	127.15	127.00	137.16	13.72	17.30	36.53
811.1280002	127.80	128.00	128.00	135.26	29.21	34.27	40.30
811.1299001	129.79	130.00	129.90	139.52	19.05	23.83	30.00
811.1300002	129.97	130.18	130.00	139.52	22.00	25.30	32.51
811.1301802	130.05	130.25	130.18	139.70	20.65	25.40	31.75
811.1333502	133.25	133.45	133.35	141.22	20.65	25.40	31.75
811.1349002	134.80	135.00	134.90	145.67	20.50	25.40	31.75
811.1365302	136.42	136.63	136.53	149.23	20.65	25.40	31.75
811.1381303	138.02	138.23	138.13	146.05	38.10	42.88	47.63
811.1390901	138.99	139.19	139.09	149.86	14.30	19.05	31.34
811.1397001	139.65	139.85	139.70	150.83	13.16	17.91	31.75
811.1397002	139.65	139.85	139.70	150.83	20.65	25.40	31.75
811.1400002	139.90	140.11	140.00	151.00	20.50	25.40	31.75
811.1428802	142.77	142.98	142.88	157.18	22.23	25.40	46.02
811.1450101	144.75	145.01	145.01	154.94	19.05	22.23	46.02
811.1456401	145.44	145.64	145.64	154.94	14.30	19.05	49.23
811.1460502	145.95	146.15	146.05	156.97	20.65	25.40	44.45
811.1492302	149.12	149.33	149.23	157.18	25.40	31.75	33.35
811.1499902	149.76	150.01	149.99	159.00	26.01	30.00	32.51
811.1508302	150.72	150.93	150.83	161.93	25.40	28.58	47.63
811.1524001	152.27	152.48	152.40	161.54	12.70	19.05	44.45
811.1524002	152.27	152.48	152.40	161.93	25.40	31.75	44.45
811.1540002	153.87	154.13	154.00	161.93	26.01	30.00	32.99
811.1548602	154.74	154.99	154.86	167.01	26.01	30.00	32.99
811.1575602	157.43	157.68	157.56	168.28	20.65	27.00	44.45
811.1587502	158.62	158.88	158.75	168.28	26.19	31.75	44.45
811.1599902	159.74	159.99	159.99	171.45	25.40	31.75	34.93
811.1651002	164.97	165.23	165.10	177.80	25.40	31.75	34.93
811.1698803	169.75	170.00	169.88	182.58	31.75	38.00	44.45
811.1714502	171.32	171.58	171.45	180.98	20.65	27.00	44.45
811.1750102	174.75	175.01	175.01	186.99	27.99	32.00	35.00
811.1778002	177.67	177.93	177.80	189.87	25.40	31.75	42.88
811.1800103	179.76	180.01	180.01	190.50	32.99	38.00	44.50
811.1841503	184.00	184.25	184.15	197.10	31.75	38.10	55.25
811.1848603	184.73	184.99	184.86	197.10	32.00	38.00	54.99
811.1893102	189.08	189.33	189.31	199.64	20.65	25.40	31.75
811.1905002	190.37	190.63	190.50	200.03	20.65	25.40	31.75
811.1968502	196.72	196.98	196.85	210.06	25.40	33.35	47.63
811.2000303	199.87	200.13	200.03	212.73	34.52	38.10	44.45
811.2016302	201.50	201.75	201.63	212.73	25.40	31.75	44.45
811.2032002	203.07	203.33	203.20	212.73	25.40	31.75	44.45



SLEEVES BECA 812



DESCRIPTION

The BECA 812 profile is a final stainless steel sleeve with a titanium coating.

ADVANTAGES

Good corrosion resistance
Good chemical inertia
Extremely thin, no need to modify the dimensions of the shaft seal
Easy to fit

APPLICATIONS

Hubs
Pinions
Differentials
Gear boxes
Crankshafts

MATERIALS

Material

Stainless steel - AISI 304

Coating

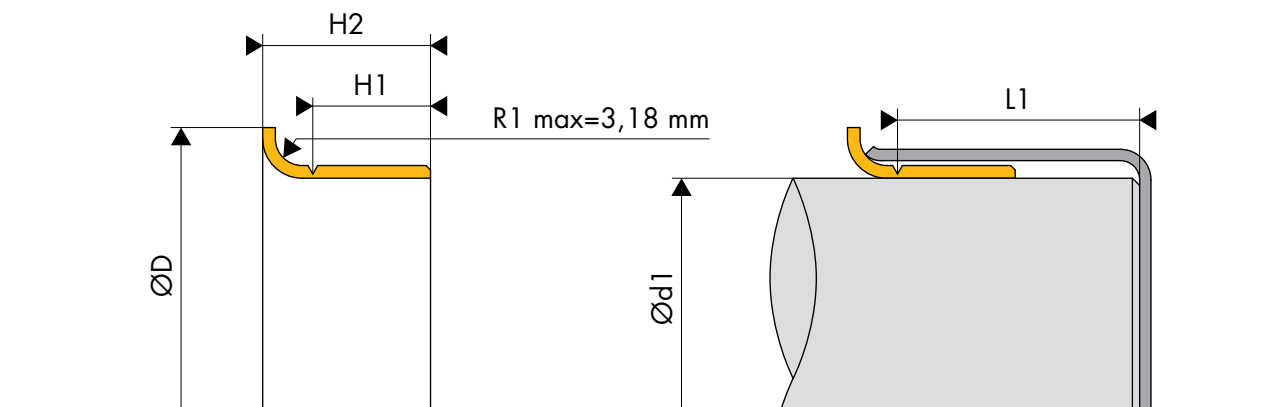
Titanium

Hardness

80 - 85 HRC

Thickness

0.28 mm (+/-0.05)



DIMENSIONS

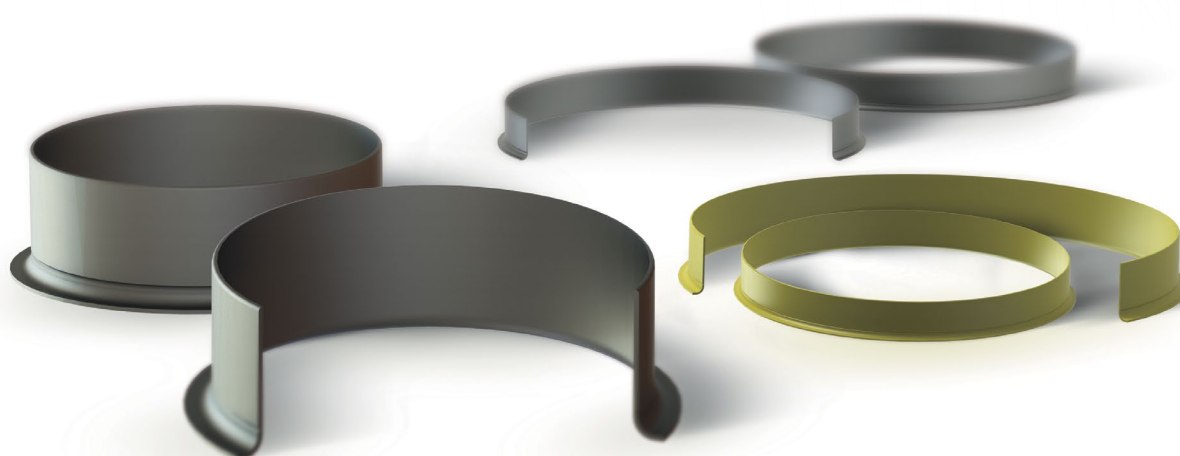
Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
812.0119905	11.99	12.07	11.99	15.49	5.99	8.41	47.63
812.0127006	12.65	12.75	12.70	15.49	6.35	8.74	50.80
812.0140006	13.89	14.00	14.00	19.05	6.35	9.93	46.51
812.0143006	14.22	14.38	14.30	19.05	6.35	9.93	46.51
812.0150105	14.96	15.06	15.01	19.05	5.00	8.99	47.29
812.0158807	15.82	15.93	15.88	19.05	7.95	10.31	50.80
812.0160007	15.90	16.00	16.00	18.24	7.95	11.13	50.80
812.0169908	16.94	17.04	16.99	22.23	8.00	11.00	50.80
812.0173707	17.32	17.42	17.37	22.86	7.95	11.13	50.80
812.0180108	17.88	18.01	18.01	24.43	8.00	11.00	46.00
812.0190507	19.00	19.10	19.05	24.00	7.95	11.13	50.80
812.0193007	19.28	19.33	19.30	23.83	7.95	11.13	50.80
812.0198407	19.81	19.91	19.84	23.75	7.95	11.13	50.80

Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
812.0199908	19.94	20.04	19.99	23.62	8.00	11.00	50.80
812.0206509	20.62	20.70	20.65	30.18	9.53	14.30	76.20
812.0218206	21.77	21.87	21.82	29.34	6.35	9.53	50.80
812.0220006	21.87	22.00	22.00	30.18	6.58	9.12	47.14
812.0220008	21.87	22.00	22.00	30.18	8.00	11.99	46.02
812.0222307	22.17	22.28	22.23	27.79	7.95	11.13	50.80
812.0231107	23.06	23.16	23.11	30.94	7.95	11.13	46.91
812.0240007	23.88	24.00	24.00	28.70	7.95	11.13	50.80
812.0246107	24.54	24.64	24.61	28.70	7.95	11.13	50.80
812.0246115	24.54	24.64	24.61	28.70	15.88	18.26	50.80
812.0249907	24.94	25.04	24.99	33.02	7.95	11.00	50.80
812.0254007	25.35	25.45	25.40	30.96	7.95	11.13	50.80
812.0260108	25.88	26.01	26.01	33.35	8.00	11.99	46.05
812.0270007	26.92	27.03	27.00	33.53	7.95	11.13	46.81
812.0276607	27.61	27.71	27.66	35.71	7.95	11.13	15.88
812.0279909	27.94	28.04	27.99	34.93	9.53	12.70	46.81
812.0285807	28.52	28.63	28.58	38.10	7.95	11.13	17.48
812.0285809	28.52	28.63	28.58	38.10	9.53	12.70	17.48
812.0293609	29.31	29.41	29.36	34.29	9.53	12.70	17.48
812.0298507	29.79	29.92	29.85	35.56	7.95	11.13	17.48
812.0300008	29.95	30.07	30.00	35.56	8.00	11.00	17.48
812.0301807	30.10	30.23	30.18	35.56	7.95	11.13	17.48
812.0309607	30.89	31.04	30.96	39.70	7.95	11.00	15.88
812.0315008	31.42	31.57	31.50	39.12	8.00	11.13	17.48
812.0317507	31.67	31.83	31.75	38.10	7.95	11.13	17.48
812.0320008	31.93	32.08	32.00	38.10	8.00	11.13	17.48
812.0329915	32.94	33.05	32.99	40.49	15.01	18.01	25.40
812.0333512	33.27	33.43	33.35	40.49	12.70	15.88	20.65
812.0333506	33.22	33.38	33.35	40.64	6.35	9.53	20.65
812.0340112	33.86	34.01	34.01	41.28	12.70	15.88	20.65
812.0349307	34.82	34.98	34.93	41.61	7.95	11.13	20.65
812.0349312	34.82	34.98	34.93	41.61	12.70	15.88	20.65
812.0349313	34.93	35.08	34.93	41.61	13.00	16.00	20.65
812.0359913	35.84	35.99	35.99	45.24	13.00	16.99	24.99
812.0365309	36.45	36.60	36.53	45.24	9.53	12.70	25.81
812.0365314	36.37	36.53	36.53	45.24	14.30	17.48	25.81
812.0380013	37.85	38.00	38.00	45.24	13.00	16.99	24.99
812.0381009	38.02	38.18	38.10	45.24	9.53	12.70	25.81
812.0381014	38.02	38.18	38.10	45.24	14.30	17.48	25.81
812.0386811	38.61	38.76	38.68	47.22	11.13	14.30	25.81
812.0394211	39.34	39.50	39.42	47.22	11.13	14.30	25.81
812.0396714	39.60	39.75	39.67	47.22	14.30	17.48	25.81
812.0398515	39.78	39.93	39.85	47.22	15.88	19.05	25.81
812.0400109	39.85	40.01	40.01	46.99	9.91	12.93	25.40
812.0400813	39.93	40.08	40.08	46.99	13.00	16.00	25.98
812.0407712	40.69	40.84	40.77	49.23	12.70	16.28	25.40
812.0410012	40.84	41.00	41.00	49.23	12.70	15.88	25.81
812.0412807	41.20	41.35	41.28	47.63	7.95	11.13	25.81
812.0412814	41.20	41.35	41.28	47.63	14.30	17.48	20.65
812.0419111	41.83	42.01	41.91	53.01	11.30	14.50	21.49
812.0419114	41.83	42.01	41.91	53.01	14.30	17.50	21.01
812.0420114	41.83	42.01	42.01	53.01	14.30	17.50	21.01
812.0420613	41.99	42.14	42.06	53.01	13.97	17.50	21.01
812.0428807	42.80	42.95	42.88	48.41	7.95	11.13	22.23
812.0428814	42.77	42.93	42.88	48.41	14.30	17.48	22.23
812.0430012	42.85	43.00	43.00	48.41	12.70	15.88	21.44
812.0436614	43.56	43.71	43.66	51.59	14.30	17.48	20.65
812.0441709	44.09	44.25	44.17	52.40	9.53	12.70	20.65
812.0444509	44.37	44.53	44.45	52.20	9.53	12.70	20.65
812.0444513	44.37	44.53	44.45	52.40	13.49	15.88	22.30
812.0444514	44.37	44.53	44.45	52.40	14.30	17.48	20.65
812.0444519	44.37	44.53	44.45	52.40	19.05	22.23	20.65

Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
812.0448614	44.73	44.88	44.86	52.40	14.30	17.48	20.65
812.0450114	44.93	45.09	45.01	53.01	14.00	16.99	20.62
812.0452416	45.16	45.31	45.24	53.98	16.94	20.32	26.97
812.0460514	45.95	46.10	46.05	53.09	14.30	17.48	25.40
812.0472214	47.17	47.32	47.22	54.76	14.30	17.48	25.40
812.0474522	47.40	47.55	47.45	55.58	22.58	26.04	25.40
812.0476304	47.55	47.70	47.63	55.96	4.45	7.49	18.90
812.0476307	47.55	47.70	47.63	55.96	7.49	10.54	18.90
812.0476309	47.55	47.70	47.63	55.96	9.53	13.11	26.67
812.0476314	47.55	47.70	47.63	55.96	14.30	17.48	25.40
812.0480314	47.93	48.08	48.03	56.01	14.00	16.97	24.99
812.0485609	48.49	48.64	48.56	56.36	9.53	12.70	25.40
812.0492314	49.12	49.28	49.23	56.36	14.30	17.48	25.40
812.0500114	49.91	50.06	50.01	57.00	14.00	16.97	24.99
812.0502914	50.22	50.37	50.29	58.75	14.30	17.88	26.67
812.0508014	50.72	50.88	50.80	61.11	14.30	17.48	25.55
812.0508022	50.72	50.88	50.80	61.11	22.23	25.40	25.40
812.0519912	51.82	51.99	51.99	62.71	12.70	15.88	34.52
812.0524019	52.25	52.40	52.40	62.71	19.84	23.83	34.93
812.0539812	53.92	54.05	53.98	61.52	12.70	19.05	32.54
812.0539819	53.95	54.10	53.98	61.52	19.84	23.83	34.93
812.0549919	54.91	55.07	54.99	62.00	19.99	22.99	31.75
812.0555819	55.52	55.68	55.58	63.50	19.84	23.83	33.35
812.0560112	55.83	56.01	56.01	64.29	12.70	15.88	33.35
812.0560119	55.83	56.01	56.01	64.29	19.79	23.77	80.01
812.0566412	56.57	56.72	56.64	64.29	12.70	15.88	33.35
812.0566419	56.57	56.72	56.64	64.29	19.84	23.01	31.75
812.0569019	56.82	56.97	56.90	65.10	19.41	22.86	31.75
812.0571507	57.12	57.28	57.15	64.29	7.95	11.13	33.35
812.0571519	57.12	57.28	57.15	64.29	19.84	23.83	33.35
812.0579919	57.91	58.06	57.99	65.99	19.99	23.83	34.93
812.0587519	58.65	58.80	58.75	68.28	19.84	23.83	34.93
812.0591319	59.11	59.26	59.13	69.85	19.05	22.23	38.10
812.0599909	59.92	60.07	59.99	70.74	9.40	11.43	37.36
812.0599919	59.92	60.07	59.99	70.74	19.99	22.99	34.93
812.0603313	60.30	60.45	60.33	69.85	13.36	17.35	34.93
812.0603315	60.25	60.40	60.33	69.85	15.09	19.05	34.93
812.0603319	60.25	60.40	60.33	69.85	19.84	23.83	34.93
812.0619312	61.85	62.00	61.93	71.83	12.70	15.88	36.20
812.0619319	61.82	62.00	61.93	71.83	19.84	23.83	35.38
812.0620012	61.82	62.00	62.00	71.83	12.70	15.88	36.20
812.0633019	63.22	63.37	63.30	73.03	19.84	23.83	35.38
812.0635014	63.42	63.58	63.50	71.63	14.10	16.51	22.61
812.0635019	63.42	63.58	63.50	71.63	19.84	23.83	34.93
812.0635012	63.50	63.65	63.50	71.83	12.70	16.66	35.38
812.0639119	63.75	63.91	63.91	71.83	19.84	23.01	36.53
812.0650019	64.92	65.07	65.00	72.39	19.99	22.99	34.93
812.0651019	65.02	65.18	65.10	73.43	19.84	23.83	34.93
812.0659919	65.91	66.07	65.99	75.95	19.84	23.83	31.75
812.0665719	66.50	66.65	66.57	77.39	19.84	23.83	34.93
812.0666812	66.60	66.75	66.68	77.39	12.70	15.88	34.93
812.0666819	66.57	66.73	66.68	77.39	19.84	23.01	34.93
812.0680019	67.82	68.00	68.00	79.38	19.05	22.23	42.88
812.0693419	69.27	69.42	69.34	79.38	19.84	23.01	33.35
812.0696719	69.60	69.75	69.67	77.85	19.84	23.83	31.75
812.0698536	69.77	69.93	69.85	78.11	36.53	41.28	41.28
812.0698510	69.85	70.00	69.85	79.38	10.31	14.30	31.75
812.0698519	69.72	69.88	69.85	79.38	19.84	23.83	31.75
812.0698528	69.72	69.88	69.85	79.38	28.58	31.75	33.32
812.0700019	69.93	70.08	70.00	79.38	19.99	24.00	31.75
812.0714515	71.35	71.50	71.45	80.98	15.09	17.48	31.75
812.0720119	71.83	72.01	72.01	81.92	19.05	22.23	34.11
812.0720912	72.09	72.24	72.09	81.92	12.70	16.66	31.75
812.0728719	72.80	72.95	72.87	80.98	19.84	23.83	31.75
812.0730319	72.97	73.13	73.03	81.76	19.84	23.83	31.75
812.0746312	74.60	74.75	74.63	84.94	12.70	16.28	33.81

Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
812.0746319	74.60	74.75	74.63	84.94	19.84	23.83	33.35
812.0746819	74.60	74.75	74.68	84.94	19.84	23.83	33.35
812.0750115	74.93	75.08	75.01	83.13	15.09	17.53	27.51
812.0750122	74.93	75.08	75.01	83.95	22.00	26.01	33.35
812.0755420	75.49	75.59	75.54	82.17	20.65	25.40	31.75
812.0760220	75.49	75.59	76.02	85.09	20.65	25.40	32.54
812.0760212	75.95	76.10	76.02	85.32	12.29	15.88	33.81
812.0760214	75.95	76.10	76.02	85.32	14.30	17.48	34.93
812.0762020	75.95	76.10	76.20	82.17	20.65	25.40	32.54
812.0762015	76.20	76.35	76.20	84.96	15.88	20.65	32.51
812.0764812	76.40	76.56	76.48	85.22	12.70	15.88	50.80
812.0780019	77.83	78.00	78.00	88.09	19.05	22.23	52.22
812.0793814	79.35	79.55	79.38	89.54	14.00	18.01	51.59
812.0793817	79.25	79.40	79.38	89.69	17.48	20.65	50.80
812.0793820	79.25	79.40	79.38	89.69	20.65	25.40	50.80
812.0800119	79.81	80.01	80.01	89.92	19.05	22.50	34.93
812.0800111	79.91	80.09	80.01	89.99	11.00	15.01	34.93
812.0800121	79.91	80.09	80.01	89.99	21.01	24.00	34.93
812.0819916	81.92	82.07	81.99	91.06	16.76	21.54	44.45
812.0825515	82.55	82.70	82.55	90.81	15.11	18.26	34.93
812.0825517	82.55	82.70	82.55	91.06	17.48	22.23	31.75
812.0825520	82.55	82.70	82.55	91.06	20.65	25.40	34.93
812.0840720	84.00	84.15	84.07	93.68	20.65	25.40	34.93
812.0848916	84.76	85.01	84.89	93.98	16.99	21.01	35.00
812.0848921	84.76	85.01	84.89	93.98	21.01	24.99	35.00
812.0850110	84.79	85.01	85.01	90.93	10.13	12.67	36.35
812.0857309	85.67	85.83	85.73	93.68	9.53	12.70	35.81
812.0857320	85.67	85.83	85.73	93.85	20.65	25.40	34.93
812.0873319	87.25	87.40	87.33	97.64	19.84	23.01	35.71
812.0880029	87.80	88.00	88.00	95.28	29.21	34.27	42.50
812.0883919	88.32	88.47	88.39	97.41	19.84	23.01	35.71
812.0889007	88.90	89.05	88.90	97.16	7.95	12.70	34.21
812.0889015	88.82	88.98	88.90	97.64	15.88	20.65	34.21
812.0889020	88.82	88.98	88.90	97.64	20.65	25.40	34.21
812.0890015	88.93	89.08	89.00	97.64	15.88	20.65	34.24
812.0899911	89.92	90.07	89.99	101.60	11.13	13.67	46.05
812.0899913	89.92	90.07	89.99	101.60	13.36	16.94	44.45
812.0899918	89.92	90.07	89.99	101.60	18.03	23.01	46.05
812.0899923	89.92	90.07	89.99	101.60	23.01	27.99	44.45
812.0905020	90.42	90.58	90.50	99.06	20.65	25.40	44.45
812.0919720	91.90	92.05	91.97	102.39	20.65	25.40	44.45
812.0920812	92.02	92.18	92.08	102.24	12.70	15.88	44.45
812.0920820	92.02	92.18	92.08	102.39	20.65	25.40	44.45
812.0936820	93.60	93.75	93.68	102.24	20.65	23.83	45.72
812.0936807	93.57	93.73	93.68	102.39	7.95	11.13	22.23
812.0947411	94.67	94.82	94.74	102.01	11.91	15.09	45.72
812.0947419	94.67	94.82	94.74	102.24	19.84	23.01	45.72
812.0950021	94.92	95.07	95.00	102.24	21.01	24.00	45.72
812.0950708	95.00	95.15	95.07	102.39	8.74	12.70	45.72
812.0950711	95.00	95.15	95.07	102.49	11.91	15.09	45.72
812.0952214	95.15	95.30	95.22	102.24	14.30	17.48	45.72
812.0952517	95.25	95.40	95.25	102.11	17.48	22.23	45.72
812.0953317	95.25	95.40	95.33	102.11	17.48	22.23	45.72
812.0953308	95.25	95.40	95.33	102.24	8.74	12.70	45.72
812.0983220	98.25	98.40	98.32	106.30	20.65	25.40	47.63
812.0984320	98.37	98.53	98.43	107.16	20.65	25.40	47.63
812.1000320	99.95	100.10	100.03	109.55	20.65	25.40	52.07
812.1016001	101.55	101.75	101.60	111.13	12.70	15.88	52.48
812.1016002	101.55	101.75	101.60	111.13	20.65	25.40	52.07
812.1039901	103.89	104.09	103.99	112.73	19.99	24.00	35.99
812.1047802	104.70	104.90	104.78	113.54	20.65	25.40	34.93
812.1050001	104.90	105.11	105.00	113.54	19.99	23.19	35.00
812.1063802	106.25	106.45	106.38	114.30	20.65	25.40	34.93
812.1075401	107.34	107.54	107.54	117.09	19.84	23.01	36.53
812.1079502	107.90	108.10	107.95	117.09	20.65	25.40	36.53
812.1099301	109.91	110.11	109.93	124.99	12.93	16.51	31.75

Part number	Shaft diameter Ød1 min	Shaft diameter Ød1 max	Shaft diameter Ød1	Outside diameter ØD	Height H1	Height H2	Width L1
812.1100101	109.78	110.01	110.01	124.99	11.38	14.96	32.94
812.1111302	111.00	111.20	111.13	120.65	20.65	25.40	41.91
812.1119901	111.79	111.99	111.99	120.65	19.05	22.50	33.02
812.1127302	112.62	112.83	112.73	122.25	25.40	29.01	33.35
812.1143002	114.20	114.40	114.30	123.19	20.65	25.40	31.75
812.1150102	114.88	115.09	115.01	127.00	20.65	23.83	31.75
812.1174801	117.37	117.58	117.48	127.00	11.13	15.88	34.93
812.1174802	117.37	117.58	117.48	128.60	25.40	31.75	34.93
812.1190802	119.00	119.20	119.08	128.60	20.65	25.40	34.93
812.1199908	119.89	120.09	119.99	129.79	8.00	11.00	33.60
812.1199901	119.89	120.09	119.99	129.79	19.99	24.99	32.00
812.1206501	120.55	120.75	120.65	127.00	12.70	19.05	38.10
812.1220001	121.89	122.10	122.00	131.50	19.99	24.00	32.00
812.1230101	122.91	123.11	123.01	132.82	19.99	24.99	31.60
812.1238301	123.72	123.93	123.83	133.35	15.88	19.05	36.53
812.1249901	124.89	125.10	124.99	137.16	10.01	14.00	36.53
812.1249902	124.89	125.10	124.99	137.16	26.01	32.00	36.53
812.1270002	124.89	125.10	127.00	136.91	20.65	25.40	36.53
812.1270001	126.95	127.15	127.00	137.16	13.72	17.30	36.53
812.1280002	127.80	128.00	128.00	135.26	29.21	34.27	40.30
812.1299001	129.79	130.00	129.90	139.52	19.05	23.83	30.00
812.1300002	129.97	130.18	130.00	139.52	22.00	25.30	32.51
812.1301802	130.05	130.25	130.18	139.70	20.65	25.40	31.75
812.1333502	133.25	133.45	133.35	141.22	20.65	25.40	31.75
812.1349002	134.80	135.00	134.90	145.67	20.50	25.40	31.75
812.1365302	136.42	136.63	136.53	149.23	20.65	25.40	31.75
812.1381303	138.02	138.23	138.13	146.05	38.10	42.88	47.63
812.1390901	138.99	139.19	139.09	149.86	14.30	19.05	31.34
812.1397001	139.65	139.85	139.70	150.83	13.16	17.91	31.75
812.1397002	139.65	139.85	139.70	150.83	20.65	25.40	31.75
812.1400002	139.90	140.11	140.00	151.00	20.50	25.40	31.75
812.1428802	142.77	142.98	142.88	157.18	22.23	25.40	46.02
812.1450101	144.75	145.01	145.01	154.94	19.05	22.23	46.02
812.1456401	145.44	145.64	145.64	154.94	14.30	19.05	49.23
812.1460502	145.95	146.15	146.05	156.97	20.65	25.40	44.45
812.1492302	149.12	149.33	149.23	157.18	25.40	31.75	33.35
812.1499902	149.76	150.01	149.99	159.00	26.01	30.00	32.51
812.1508302	150.72	150.93	150.83	161.93	25.40	28.58	47.63
812.1524001	152.27	152.48	152.40	161.54	12.70	19.05	44.45
812.1524002	152.27	152.48	152.40	161.93	25.40	31.75	44.45
812.1540002	153.87	154.13	154.00	161.93	26.01	30.00	32.99
812.1548602	154.74	154.99	154.86	167.01	26.01	30.00	32.99
812.1575602	157.43	157.68	157.56	168.28	20.65	27.00	44.45
812.1587502	158.62	158.88	158.75	168.28	26.19	31.75	44.45
812.1599902	159.74	159.99	159.99	171.45	25.40	31.75	34.93
812.1651002	164.97	165.23	165.10	177.80	25.40	31.75	34.93
812.1698803	169.75	170.00	169.88	182.58	31.75	38.00	44.45
812.1714502	171.32	171.58	171.45	180.98	20.65	27.00	44.45
812.1750102	174.75	175.01	175.01	186.99	27.99	32.00	35.00
812.1778002	177.67	177.93	177.80	189.87	25.40	31.75	42.88
812.1800103	179.76	180.01	180.01	190.50	32.99	38.00	44.50
812.1841503	184.00	184.25	184.15	197.10	31.75	38.10	55.25
812.1848603	184.73	184.99	184.86	197.10	32.00	38.00	54.99
812.1893102	189.08	189.33	189.31	199.64	20.65	25.40	31.75
812.1905002	190.37	190.63	190.50	200.03	20.65	25.40	31.75
812.1968502	196.72	196.98	196.85	210.06	25.40	33.35	47.63
812.2000303	199.87	200.13	200.03	212.73	34.52	38.10	44.45
812.2016302	201.50	201.75	201.63	212.73	25.40	31.75	44.45
812.2032002	203.07	203.33	203.20	212.73	25.40	31.75	44.45



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