



Precision shims, made to your drawing

A shim is a thin, accurate spacer that sets a gap, aligns a machine or levels a structure. We make U-shim kits, shim rings, packing and levelling shims, laminated peelable shims and wedges in stainless steel, brass and steel, from 0.05 mm foil to 6 mm plate.

Which shim for which job

Align a motor, pump or gearbox	U-shim kits
Set bearing end-float or preload	Shim rings
Level a steel column, machine base or skid	Packing and levelling shims
Fine-tune tooling, dies or fixtures	Laminated peelable shims
Set a height smoothly	Tapered wedge pairs
Cut your own shapes, or send a drawing	Shim sheet and custom shapes

Shim types

U-shims and alignment kits	Slotted shims that slide under a foot or base without removing the bolt. Stainless, brass and steel kits in thin and heavy gauges.
Shim rings (DIN 988-type)	Flat rings in stainless steel for setting end-float and preload of bearings, gears and shafts, in kits of gauges.
Packing and levelling shims	Slotted and holed plates in steel, stainless and galvanised sheet for base plates, lift guide-rail brackets, solar structures and spacers.
Laminated peelable shims	Bonded foil layers that the fitter peels off one at a time to reach the exact gap.
Wedges and special shapes	Ground tapered wedges for smooth height setting; wave shims on request.
Shim sheet and custom shapes	Flat shim sheet in a set of gauges, or any outline cut to your drawing.

Standard kits and sizes

CODE	PRODUCT	SIZE	MATERIAL	GAUGES OR BUILD
27.01	Alignment U-shim kit, thin gauges, SS304	100 × 100 mm; sizes from 50 to 150 mm	Stainless steel 304 shim stock	0.05, 0.1, 0.2, 0.25, 0.3, 0.5, 0.75 mm; 10 of each per pack
27.02	Alignment U-shim kit, heavy gauges, SS304	100 × 100 mm; sizes from 50 to 150 mm	Stainless steel 304 shim stock	1.0, 1.5, 2.0, 3.0 mm; 10 of each per pack
27.03	Alignment U-shim kit, heavy gauges, SS316	100 × 100 mm	Stainless steel 316 / 316L shim stock	1.0, 1.5, 2.0, 3.0 mm; 10 of each per pack
27.04	Brass alignment shim kit	100 × 100 mm	Brass shim stock 70/30, half-hard	1.0, 1.5, 2.0, 3.0 mm; 10 of each per pack
27.05	Machine-foot shim plate with two holes	150 × 100 mm; sizes from 100 to 200 mm	CRCA cold-rolled sheet	1.0, 1.5, 2.0, 3.0 mm; 10 of each per pack

CODE	PRODUCT	SIZE	MATERIAL	GAUGES OR BUILD
27.06	Shim ring kit, DIN 988-type, Ø28 × Ø20, SS304	Ø28 outside, Ø20 inside; bore sizes from 10 to 60 mm	Stainless steel 304 shim stock	0.1, 0.15, 0.2, 0.3, 0.5, 1.0, 1.5, 2.0 mm; 20 of each per pack
27.07	Heavy shim ring kit, DIN 988-type, Ø95 × Ø75, SS304	Ø95 outside, Ø75 inside; bore sizes from 75 to 170 mm	Stainless steel 304 shim stock	0.5, 1.0, 1.5, 2.0 mm; 10 of each per pack
27.08	Base-plate packing shim, mild steel	100 × 100 mm; sizes from 75 to 200 mm	Mild-steel plate	2, 3, 4, 5, 6 mm; 10 of each per pack
27.09	Lift guide-rail bracket packing shim set, SS304	100 × 60 mm	Stainless steel 304 shim stock	1.0, 1.5, 2.0, 3.0, 4.0 mm; 10 of each per pack
27.10	Solar structure levelling shim, galvanised	80 × 80 mm	GI sheet	1.5, 2.0, 2.5, 3.0 mm; 10 of each per pack
27.11	Spacer plate with centre hole, zinc plated	50 × 50 mm; sizes from 40 to 80 mm	Mild-steel plate	2, 3, 4, 5, 6 mm; 20 of each per pack
27.12	Laminated peelable shim, SS304	75 × 75 mm; three sizes	Stainless steel 304 laminated shim stock	10 layers of 0.05 mm (0.5 mm in all)
27.13	Tapered levelling wedge pair, mild steel	100 × 40 mm	Mild-steel plate	6 mm to 1 mm, slope 1 in 20
27.14	Shim sheet cut to size, SS304	300 × 300 mm; sizes from 150 to 500 mm	Stainless steel 304 shim stock	0.8, 1.0, 1.2, 1.5, 2.0, 2.5, 3.0 mm; one of each per set

Any other size, slot, outline, gauge or material is made to your drawing. Thickness is marked on every shim.



Gauges and how they are cut

0.05 mm	Photo-etched
0.1 to 0.75 mm	Laser-cut
0.8 to 6 mm	Shear and turret punch

How we control thickness

We cut shims from shim stock whose thickness is certified, check the thickness with a micrometre and mark the gauge on every shim. A material certificate for the stock is available on request.

Materials

MATERIAL	BEST FOR	PRODUCTS
Stainless steel 304	General purpose; strong and corrosion resistant	U-shims, rings, laminated shims, sheet
Stainless steel 316	Marine, coastal and chemical plants	U-shim kits, rings
Brass 70/30 (CuZn30)	Soft and non-magnetic; electrical machines, instruments	U-shim kits
Mild steel	Heavy packing under base plates and machines	Packing shims, wedges, spacer plates
Cold-rolled steel, zinc plated	Foot shim plates; plating adds 5 to 8 micrometres	Machine-foot shim plates
Galvanised (GI) sheet	Solar structures and outdoor levelling	Levelling shims

Shim ring sizes, DIN 988 type

Nominal bore and outside diameter in millimetres, with the limit bands for the ring series. Thickness 0.1 to 2.0 mm. Listed for guidance: confirm sizes against the current standard or your drawing.

BORE D	OUTSIDE D	BORE LIMITS	OUTSIDE LIMITS	BORE D	OUTSIDE D	BORE LIMITS	OUTSIDE LIMITS
3	6	3.02 to 3.12	5.85 to 5.97	42	52	42.08 to 42.33	51.6 to 51.9
4	8	4.03 to 4.15	7.81 to 7.96	45	55	45.08 to 45.33	54.6 to 54.9
5	10	5.03 to 5.15	9.81 to 9.96	45	56	45.08 to 45.33	55.6 to 55.9
6	12	6.03 to 6.15	11.77 to 11.95	48	60	48.08 to 48.33	59.6 to 59.9
7	13	7.04 to 7.19	12.77 to 12.95	50	62	50.08 to 50.33	61.6 to 61.9
8	14	8.04 to 8.19	13.77 to 13.95	50	63	50.08 to 50.33	62.6 to 62.9
9	15	9.04 to 9.19	14.77 to 14.95	52	65	52.1 to 52.4	64.6 to 64.9
10	16	10.04 to 10.19	15.77 to 15.95	55	68	55.1 to 55.4	67.6 to 67.9
11	17	11.05 to 11.23	16.77 to 16.95	56	70	56.1 to 56.4	69.6 to 69.9
12	18	12.05 to 12.23	17.77 to 17.95	56	72	56.1 to 56.4	71.6 to 71.9
13	19	13.05 to 13.23	18.725 to 18.935	60	75	60.1 to 60.4	74.6 to 74.9
14	20	14.05 to 14.23	19.725 to 19.935	63	80	63.1 to 63.4	79.6 to 79.9
15	21	15.05 to 15.23	20.725 to 20.935	65	85	65.1 to 65.4	84.53 to 84.88
16	22	16.05 to 16.23	21.725 to 21.935	70	90	70.1 to 70.4	89.53 to 89.88
17	24	17.05 to 17.23	23.725 to 23.935	75	95	75.1 to 75.4	94.53 to 94.88
18	25	18.05 to 18.23	24.725 to 24.935	80	100	80.1 to 80.4	99.53 to 99.88
19	26	19.065 to 19.275	25.725 to 25.935	85	105	85.12 to 85.47	104.53 to 104.88
20	28	20.065 to 20.275	27.725 to 27.935	90	110	90.12 to 90.47	109.53 to 109.88
22	30	22.065 to 22.275	29.725 to 29.935	95	115	95.12 to 95.47	114.53 to 114.88
22	32	22.065 to 22.275	31.67 to 31.92	100	120	100.12 to 100.47	119.53 to 119.88
25	35	25.065 to 25.275	34.67 to 34.92	100	125	100.12 to 100.47	124.455 to 124.855
25	36	25.065 to 25.275	35.67 to 35.92	105	130	105.12 to 105.47	129.455 to 129.855
26	37	26.065 to 26.275	36.67 to 36.92	110	140	110.12 to 110.47	139.455 to 139.855

BORE D	OUTSIDE D	BORE LIMITS	OUTSIDE LIMITS	BORE D	OUTSIDE D	BORE LIMITS	OUTSIDE LIMITS
28	40	28.065 to 28.275	39.67 to 39.92	120	150	120.12 to 120.47	149.455 to 149.855
30	42	30.065 to 30.275	41.67 to 41.92	130	160	130.145 to 130.545	159.455 to 159.855
32	45	32.08 to 32.33	44.67 to 44.92	140	170	140.145 to 140.545	169.455 to 169.855
35	45	35.08 to 35.33	44.67 to 44.92	150	180	150.145 to 150.545	179.455 to 179.855
36	45	36.08 to 36.33	44.67 to 44.92	160	190	160.145 to 160.545	189.37 to 189.83
37	47	37.08 to 37.33	46.67 to 46.92	170	200	170.145 to 170.545	199.37 to 199.83
40	50	40.08 to 40.33	49.67 to 49.92				

How to order. Send the type, material, gauge, size or outline (PDF, DXF, DWG or STEP), and the quantity to **admin@essarindustries.in** or call **+91 89399 11888**. We reply with a quotation, and a sample if you want one.

Specifications on this sheet describe our reference designs and are confirmed in a written quotation. Essar Industries, No. 20/1 & 20/2, CKS Road, Amarambedu, Chennai 600069.