



Pad printing (or tampography) is a printing process that transfers a 2-D image onto a 3-D object. The process involves an image being transferred from the cliché via a silicone pad onto a substrate.

Pad printing is used for printing on products in many industries including medical, packaging, watch industry, automotive, promotional, apparel, and electronic objects, as well as appliances, sports equipment and toys.

It can also be used to print functional materials such as conductive inks, structural inks, adhesives, dyes and lubricants.

SCERAM manufactures 2 major elements of the pad printing process:

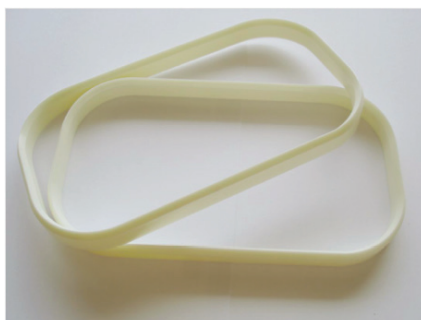
Doctor blades:

It is used to remove the ink from the plate surface, leaving ink on the cliché's etched artwork area ready for the pad to pick up.

2 materials available:

Zirconia Oxide (ZrO₂-Y₂O₃ PSZ)

Tungsten Carbide (WC)



CLICHÉ

Image plates are used to contain the desired artwork "image" etched in its surface. Their function is to hold ink in this etched cavity, allowing the silicon pad to pick up this ink as a film in the shape of the artwork, which is then transferred to the substrate.

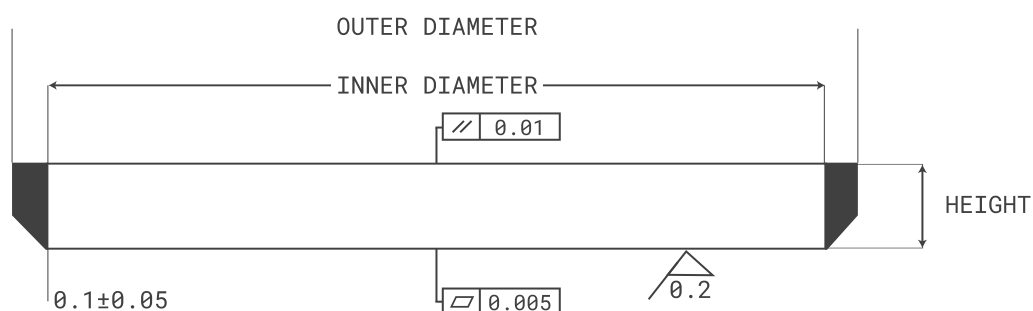
Our Zirconia Toughened Alumina (ZTA) material has been developed specifically for pad printing clichés, allowing an extremely high-quality engraving, and precise printing. ZTA material is compatible for high resolution laser engraving, and allows precise ink transfers.

ZTA material allows a consequent increase of cliché's lifetime, compared to regular stainless-steel clichés. It can also drastically reduce manutention costs.

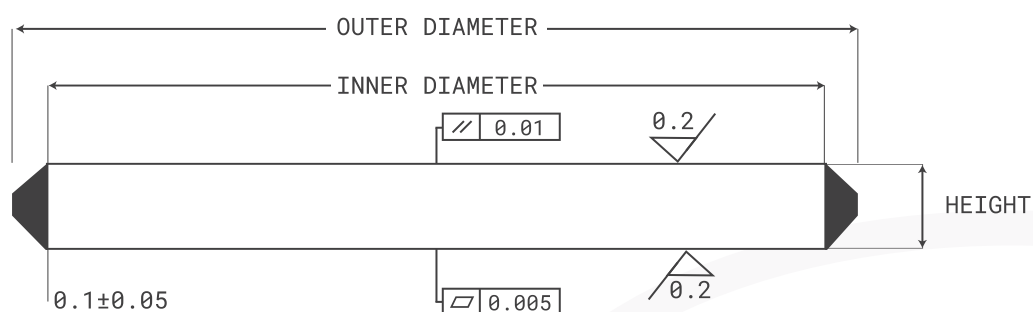
LENGTH	WIDTH	THICKNESS	GENERAL TOLERANCES	SURFACE ESTATE
140	70	10	+/-0,05	Ra <0,1 µm
200	100	10	+/-0,05	Ra <0,1 µm
215	100	10	+/-0,05	Ra <0,1 µm
255	120	10	+/-0,05	Ra <0,1 µm
300	150	10	+/-0,05	Ra <0,1 µm

Different dimensions available upon request, please contact us for more details.

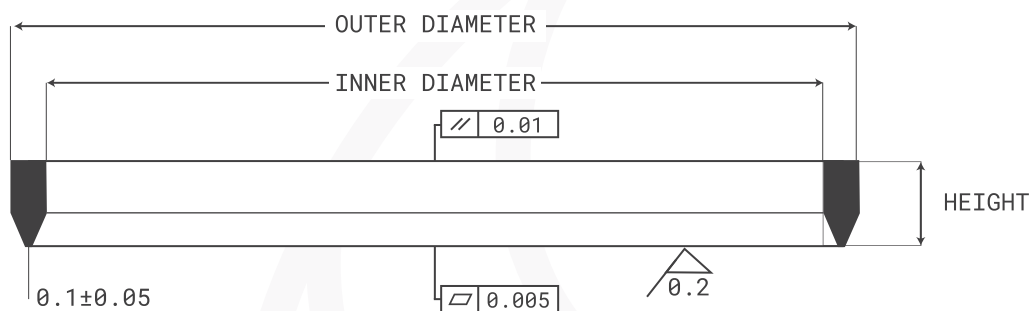
INKCUP RING BLADE CLASSIFICATION



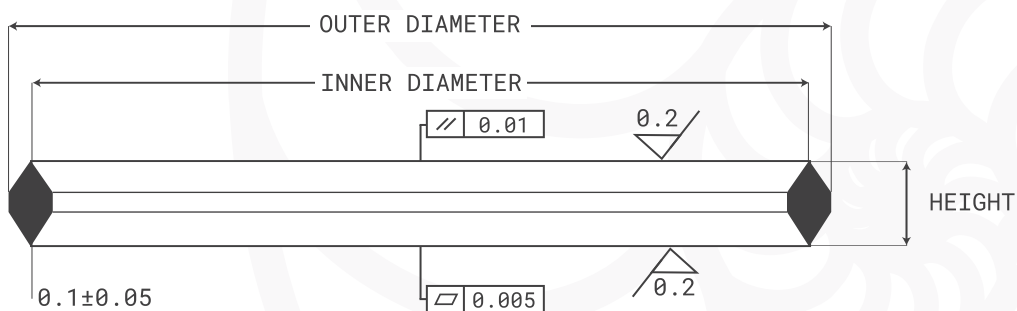
SS TYPE (SINGLE BLADE, SINGLE BEVEL TYPE)



DS TYPE (SINGLE BLADE, SINGLE BEVEL TYPE)



SD TYPE (SINGLE BLADE, DOUBLE BEVEL TYPE)



DD TYPE (SINGLE BLADE, SINGLE BEVEL TYPE)

			Zirconia Oxide Rings				Tungsten Carbide Rings			
Outer diam	Inner diam	Height	SS	SD	DS	DD	SS	SD	DS	DD
25	18	10	✓	✓	✓	✓	✓	✓	✓	✓
50	40	10	✓	✓	✓	✓	✓	✓	✓	✓
60	50	12	✓	✓	✓	✓	✓	✓	✓	✓
60	53	12	✓	✓	✓	✓	✓	✓	✓	✓
64	56	12	✓	✓	✓	✓	✓	✓	✓	✓
65	58	10	✓	✓	✓	✓	✓	✓	✓	✓
65	60	5,5	✓	N/A	N/A	N/A	✓	N/A	N/A	N/A
67	57	10	✓	✓	✓	✓	✓	✓	✓	✓
70	60	12	✓	✓	✓	✓	✓	✓	✓	✓
75	65	12	✓	✓	✓	✓	✓	✓	✓	✓
76	68	12	✓	✓	✓	✓	✓	✓	✓	✓
80	70	12	✓	✓	✓	✓	✓	✓	✓	✓
85	75	12	✓	✓	✓	✓	✓	✓	✓	✓
90	80	12	✓	✓	✓	✓	✓	✓	✓	✓
90	82	12	✓	✓	✓	✓	✓	✓	✓	✓
92	86	9,5	✓	✓	✓	✓	✓	✓	✓	✓
94	86	12	✓	✓	✓	✓	✓	✓	✓	✓
95	90	5,4	✓	N/A	N/A	N/A	✓	N/A	N/A	N/A
100	90	12	✓	✓	✓	✓	✓	✓	✓	✓
100	92	12	✓	✓	✓	✓	✓	✓	✓	✓
110	100	12	✓	✓	✓	✓	✓	✓	✓	✓
115	105	12	✓	✓	✓	✓	✓	✓	✓	✓
120	110	12	✓	✓	✓	✓	✓	✓	✓	✓
127	120	9,5	✓	✓	✓	✓	✓	✓	✓	✓
130	120	12	✓	✓	✓	✓	✓	✓	✓	✓
135	130	5,2	✓	N/A	N/A	N/A	✓	N/A	N/A	N/A
135	126	14	✓	✓	✓	✓	✓	✓	✓	✓
137	120	17	✓	✓	✓	✓	✓	✓	✓	✓
140	131	15	✓	✓	✓	✓	✓	✓	✓	✓
145	135	12	✓	✓	✓	✓	✓	✓	✓	✓
150	140	12	✓	✓	✓	✓	✓	✓	✓	✓
155	150	5,2	✓	N/A	N/A	N/A	✓	N/A	N/A	N/A
160	150	12	✓	✓	✓	✓	✓	✓	✓	✓
165	155	16	✓	✓	✓	✓	✓	✓	✓	✓
198	180	20	✓	✓	✓	✓	✓	✓	✓	✓
201	189	16	✓	✓	✓	✓	✓	✓	✓	✓
201	190	12	✓	✓	✓	✓	✓	✓	✓	✓
210	198	16	✓	✓	✓	✓	✓	✓	✓	✓
256	244	16	✓	✓	✓	✓	✓	✓	✓	✓
312	300	15	✓	✓	✓	✓	✓	✓	✓	✓

Sceram can produce custom doctor blades, on demand.