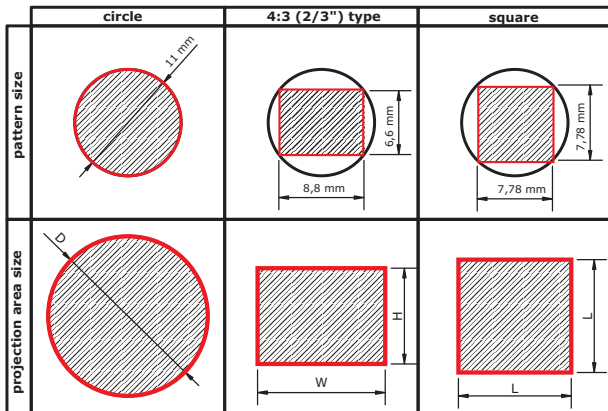


# PROJECTION LENS SELECTION



The pattern drawing that has to be projected must be inscribed in a circle whose diameter is 11 mm, same diagonal of a 2/3" detector.

For example, the pattern drawing could cover the entire 11 mm diameter area or be like a 8.8 x 6.6 mm rectangle (same size of a 2/3" detector) or, again, be a square whose side is 7.78 mm.

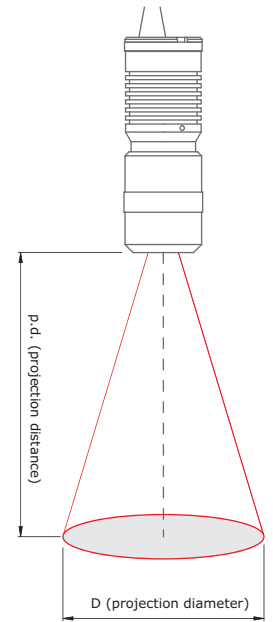
Unless the projection optics introduces significant distortion, the shape of the projection respects the same features and aspect ratio of the engraved area of the pattern. The projected area dimensions will be "M" times the original dimensions of the pattern, where M is the optical magnification at which the selected projection lens is operating.

LTPR units can integrate most types of high resolution lenses. Besides our OEPL optics, specifically tailored for this projection application, any high resolution C-mount lens can be used, provided it is tailored for 2/3" detectors (11 mm image diagonal). Telecentric lenses for 2/3" detector can also be interfaced, thus providing a parallel projection of the pattern scheme and enabling unparalleled performances in 3D measurement applications. C-mount lenses and telecentric optics can be connected to the unit by means of the mount adaptor included in the product package. Here below are listed the projection diameters and the recommended projection distances achievable by means of different types of optics.

## OEPL projection optics



OEPL Lens	Lens Description	Minimum Projection Distance (p.d.) (mm)	Maximum Projection Distance (p.d.) (mm)
<b>VIS PROJECTION OPTICS:</b>			
OEPL18	18° projection, full angle	300	800
OEPL25	25° projection, full angle	250	600
OEPL38	38° projection, full angle	200	500
OEPL50	50° projection, full angle	100	300
<b>UV PROJECTION OPTICS:</b>			
PEB2528-UV	25° projection, full angle	250	500



## Telecentric Lenses



VIS:	TC 23 04	TC 23 07	TC 23 09	TC 23 16	TC 23 24	TC 23 36
p.d. (mm)	57,1	61,2	63,3	45,3	69,2	103,5
D (mm)	5,5	8,3	11,0	20,8	31,4	45,2
	TC 23 48	TC 23 56	TC 23 64	TC 23 72	TC 23 80	TC 23 96
p.d. (mm)	134,6	159,3	182,3	227,7	227,7	279,6
D (mm)	59,8	70,0	80,0	89,9	99,7	117,8
UV:	TCUV2336	TCUV2348	TCUV2356	TCUV2364	TCUV2380	
p.d. (mm)	98,7	130,7	154,0	176,0	221,0	
D (mm)	45,7	60,0	70,1	80,1	99,6	

## 2/3" C-mount lenses



C-mount Lens	D (mm)								
	@50 mm	@75 mm	@100 mm	@150 mm	@200 mm	@250 mm	@300 mm	@400 mm	@500 mm
6 mm	81	127	172	264					
8 mm	58 (*)	92	127	195	264	333			
12 mm	35 (*)	58 (*)	81	127	172	218	264		
16 mm		41 (*)	58 (*)	92 (*)	127	161	195	264	333
25 mm				55 (*)	77 (*)	99 (*)	121 (*)	165	209 (*)
35 mm						68 (*)	83 (*)	115	146

(\*) = spacers maybe needed to compensate back focal length