

Precision Piezo Components

Piezo Components

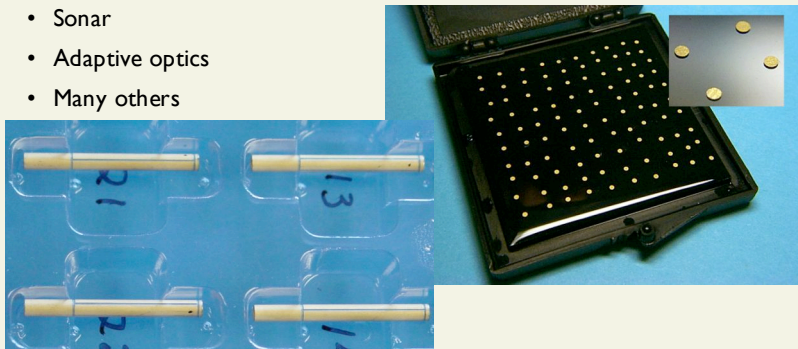
High density, high performance piezoelectric materials and advanced precision machining combine at TRS to allow us to offer precision components at reasonable prices. TRS can work with you to develop new products, fabricate prototypes and supply your volume production requirements.

Benefits of TRS Precision Components

- High performance piezo materials
- High density materials for greatly improved machinability
- Automated machining techniques for high precision at reasonable cost
- In house capabilities from materials to product development to volume manufacture
- Extensive technical support team to help you optimize you materials and design parameters.

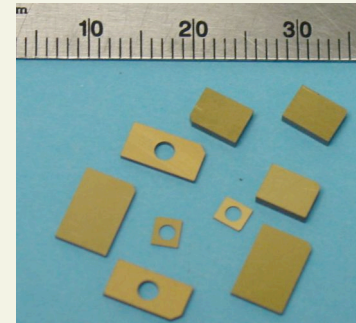
Typical Commercial Uses

- Shear plates, rings and tubes for vibration measurement
- Piezoelectric plates and elements for medical ultrasonic imaging
- Tubes and shapes for therapeutic ultrasound and HIFU
- Sonar
- Adaptive optics
- Many others



Example Size and Tolerance Capabilities

	Dimensional Range	Tolerances (+/-)	
		Standard	Fine
Plates			
X (mm)	0.25-90	0.1	0.025
Y (mm)	0.25-65	0.1	0.025
Thickness (mm)	0.10-15	0.025	0.01



	Dimensional Range	Tolerances (+/-)	
		Standard	Fine
Tubes/rings/discs			
OD (mm)	0.5-50	0.025	0.01
ID (mm)	0.5 min.	0.025	0.01
Length (mm)	0.5-50*	0.025	0.01

Notes:

Size range and tolerance can be extended on request
 *Tube capability depends on aspect ratio and well thickness

Electrodes:

Electroless Ni/Au, thick film silver, sputtered Cr/Au and Ni
 Others on request