

Automated Inspection of ANSI / ISO carbide inserts

A multi-feature, tabletop conveyor system using three cameras providing measurement/ inspection rates of 1800 inserts / hr.

The system interfaces with a host database to download the measurement parameters from a bar-coded work-order. Operator scans work-order and proceeds to load inserts to conveyor, up to 25 inserts can be pre-loaded. Inserts index through inspection area verifying standard features such as; coating/ chip breaker / size & shape / thickness / relief angle / radii / IC / hole size & centrality. Other specific features can be added.

An inspection log records total part quantities (good/bad) and rejection by defect category against time / date / operator. System writes inspection log back to host database.

The system integrates directly with a packaging system ensuring process integrity. Conveyor can be manually or robotically loaded.

Features:

- Non-contact
- Fast – 2 seconds / part
- Manual or robotic load
- Wide range of insert types / sizes and coatings
- Small foot print 24" x 48"
- Integrates with packaging hardware
- Communicates with host database



Measurement parameters:

Parameter	Value	Units
Inspection Envelope	41 x 41 (1.6 x 1.6)	mm (inches)
Resolution (linear & radii)	10 (0.0004)	Microns (inches)
Color	16	gradations
Angular resolution	0.5	degree
Inspection Rate	2	Sec./part.