



QUASAR CASE STUDY

Description

The part is a cast aluminum rear knuckle tested at 360 parts (180 pairs) per hour. The plant operates 3 shifts per day, 5 days per week and produces 1,800,000 of this type of knuckle per line per year. The plant is located in the United States and all costs and prices are in US\$.

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Part	Knuckle
Method	Aluminum Cast
Part Numbers	2
Quasar NDT	3200
Loading	Automatic
Location	USA
Amortization	2 years
Payback	5 months

Quasar replaces PT (Liquid Penetrant Testing), which costs \$0.80 per part, including the cost of transporting the parts for off-site PT testing.

The Quasar system consists of an automatically loaded Quasar 3200 Dual Nest NDT System, which was integrated into a customer-provided handling system that incorporates both Quasar and Brinell testing. The system includes robotic load/unload and mechanical part marking. The total price was \$300,000.

The cost savings are tabulated below.

Quasar Cost/part	\$ 0.11
PT Cost/part	\$ 0.80
Savings/part	\$ 0.69
Payback - Parts	524,571
Payback - Years	0.43
Payback - Months	5.1

The Quasar Cost per part is based on capital amortization over 2 years. It includes half-time cost allocation for a Level 2 NDT Tech to supervise system operation and maintenance. In summary, the payback for the system is less than one year.

For more information about this application, contact RHeld@QuasarIntl.com, referencing Quasar Case Study QCS340304.