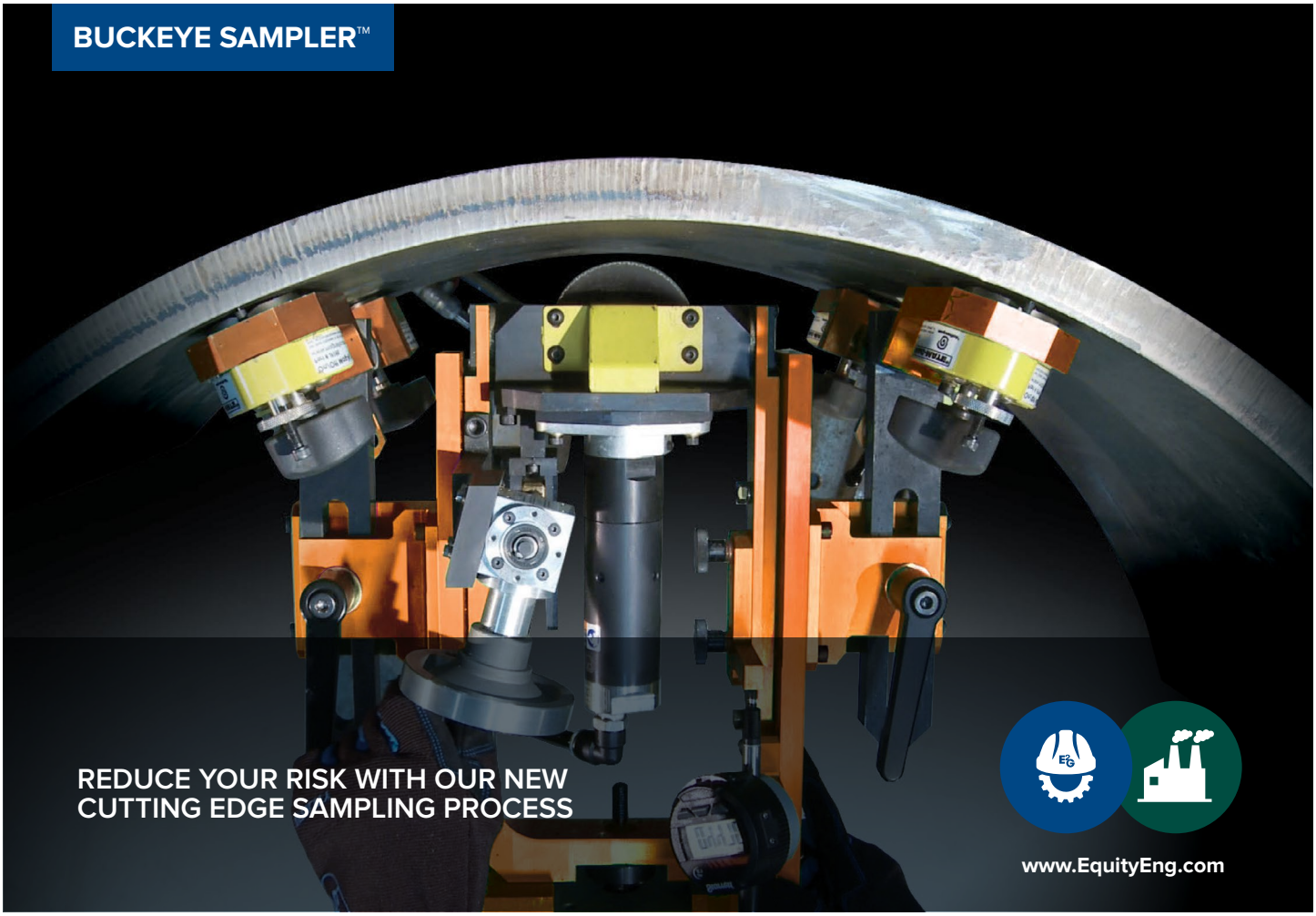
BUCKEYE SAMPLER™



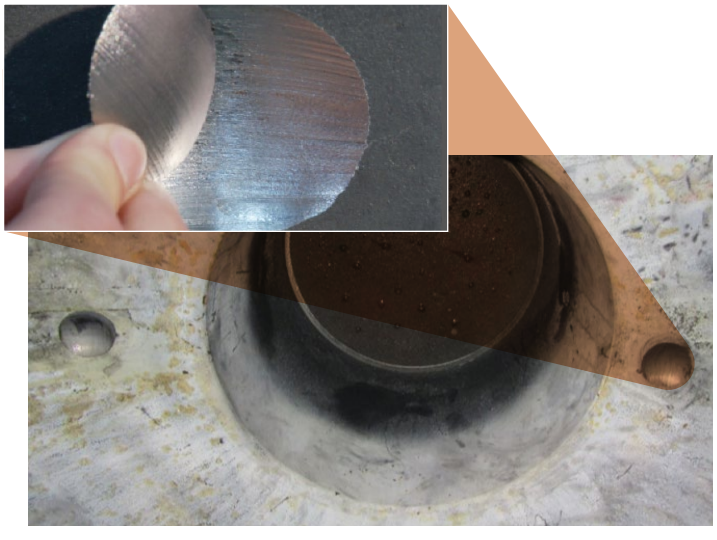
Material properties and levels of material degradation are essential for determining the remaining life of equipment. The Buckeye Sampler™ helps identify vulnerable equipment by taking small samples that provide the data needed to assess HTHA damage, creep, fire damage, microstructure and chemistry, and cracking.

THE TRADITIONAL WAY

Traditionally, samples were removed from the steel using a grinder or similar method that leaves a sharp bottom "boat shaped" divot in the steel. Depending on the damage mechanism you may be sampling to investigate, leaving a sharp indication in the pressure boundary may be highly undesirable; it leaves a local stress riser at which additional damage could accumulate.

THE MODERN WAY

The Buckeye Sampler uses a spherical blade to cut out a shallow sample that results in a smooth, rounded cavity in the steel. The profile of this cavity can typically be left as a local thin area in the steel without needing to perform any weld repairs. Simple fitness-for-service analysis can be used to validate the local thin area left by the sampler.



A clean cut in a single pass that does not require re-grinding.

Corporate Headquarters
20600 Chagrin Boulevard, Suite 1200
Shaker Heights, OH 44122
www.EquityEng.com

For More Information:
Stephanie Dux
P. 216.658.5443
E. SDux@EquityEng.com

The Equity Engineering Group, Inc.

SPECIFICATIONS

Our sampler can be used on the inside or outside surface of a vessel and can fit inside equipment that is 18 inches in diameter. The typical arrangement uses four shunted magnets to hold the cutter in place; however, the device was designed with modularity in mind whereby the cutter can be attached to multiple different bases to deal with non-magnetic steels or nozzle attachments.

- The depth of cut can be accurately controlled using a digital dial indicator; depending on the size of the blade used (3 inch or 4 inch), it can manage a range of cuts from a skim cut to 0.43 inches deep.
- Provides a smooth profile that, with simple FFS assessment, does not require repair
- Single motion cutting action eliminates cut mismatch and depth inaccuracies
- Work performed by experienced machinists minimizes cost and time
- Removes samples from ID or OD on vessels and piping in both carbon and alloy steel
- E^2G offers a full service, turn-key project or a sample cutting service under direction of the equipment owner's inspector or engineer.

Belcan

E^2G partnered with the Belcan Corporation to create, design, and fabricate a sampling device we have named Buckeye Sampler due to its roots in Ohio, the Buckeye State.

Corporate Headquarters
20600 Chagrin Boulevard, Suite 1200
Shaker Heights, OH 44122
www.EquityEng.com

For More Information:
Stephanie Dux
P. 216.658.5443
E. SDux@EquityEng.com

E2G The Equity Engineering Group, Inc.