

# National MBE Manufacturers Summit 2016

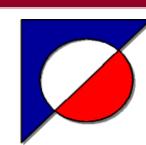
March 24, 2016

Georgia Tech Global Learning Center, Atlanta, Georgia



INNOVATION | PRODUCTIVITY | SUSTAINABILITY

# PRODUCTIVITY



## AMG ENGINEERING & MACHINING, INC.

## Problem:

- ELBOW (GREY IRON CASTING): L20.6" x W7" x D9", Wt. 14.8 Lbs.
  - THIS CASTING WAS MACHINED IN TWO SET UPS
  - SET UP TIME 8 HR
  - **❖** TOTAL CYCLE TIME 28 MIN
  - ❖ FIRST PIECE INSPECTION TIME 60 MIN





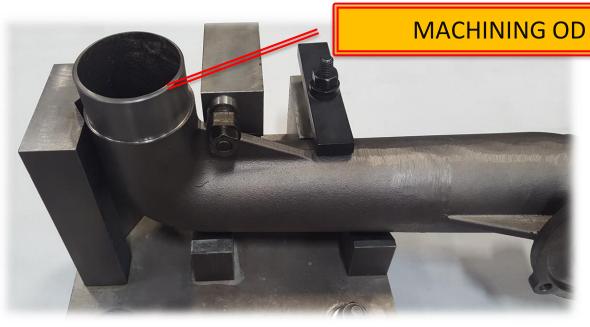


OPPORTUNITY FOR IMPROVEMENT

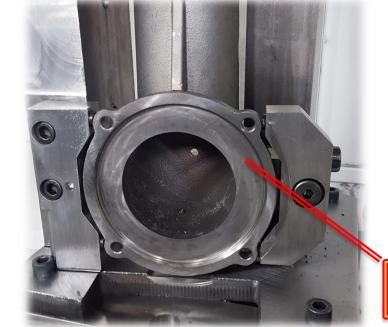
### Process:

- SET UP-1
  - **♦** MACHINING TIME = 7.5 MIN
  - ❖ LOAD & UNLOAD TIME = 3.0 MIN
  - FIRST PIECE INSPECTION TIME = 30 MIN

ANALYSIS



- SET UP-2
  - ❖ MACHINING TIME = 15.5 MIN
  - LOAD & UNLOAD TIME = 2.5 MIN
  - FIRST PIECE INSPECTION TIME = 30 MIN





MACHINING BACK PORT HOLE

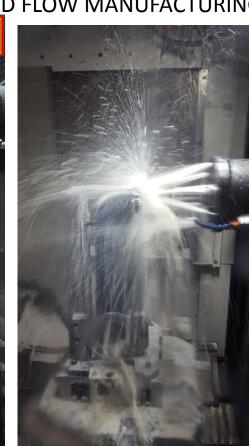
MACHINING FLANGE

## Solution:

COMPLETE MACHINING IN ONE SET UP

STRUCTURED FLOW MANUFACTURING - OKUMA MB-5000H HORIZONTAL MACHINING CENTER



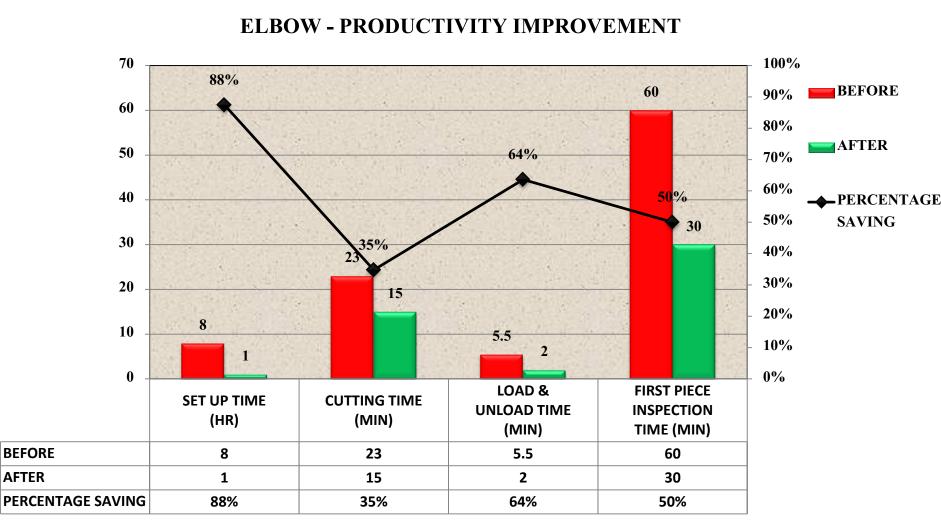




#### FINISHED PART MACHINED IN ONE SET UP

#### Results:

PROCESS IMPROVEMENTCOST REDUCTIONLEAD TIME IMPROVEMENT



## Our Company:

- AMG Engineering & Machining, Inc. is a production machining and manufacturing business specializing in CNC turning, CNC milling, and producing flow control devices (valves) for liquid and pneumatic applications. Our core competencies include prototype and production machining, simple and complex subassemblies, reverse engineering (ProE/Catia), kitting, and ultrasonic parts cleaning and particle analysis.
- With 28 years of reliable service, AMG has developed strong business and civic relationships locally, nationally, and internationally. We are committed to total customer satisfaction while maintaining the highest standards for integrity. AMG is veteran and minority owned and operated. We are registered with the FDA and are certified to ISO9001, TS16949, AS9100C, and ITAR.



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