

Pinpoint

Laser Systems

Straight to the Point!

What is Downtime Costing You?



Downtime is a 4-letter word. Ok, technically it's two 4-letter words squished together to make one, but you get my point.

When production stops because a machine is out of alignment, it's like pouring money down the drain. Calculating the cost of downtime can be very difficult, but it's something that every manufacturing plant needs to know. According to factreact.com, almost every factory loses 5% of its productivity from downtime and many can lose up to 20%.

- Factories lose between 5% and 20% in productivity due to down time.
- What goes into factoring the cost of downtime?
- Preventative Maintenance is key.

Pinpoint
Laser Systems
Industry Aligned

Performance
through
Precision



What goes into factoring the cost of downtime? Time, reduced production, scrap, band-aid costs, consulting and contractor costs, parts, and repair time, just to name a few. Okay let's do a very simple scenario. Let's say your production line falls out of alignment and starts producing scrap. It's probably going to take two hours to repair and get back up and running. What is it costing you?

Well first you need to factor in the salary of the two employees that were running the machine. Let's say they were making \$50/hour (average loaded labor). The alignment service company has been called and they can be at the plant in three hours. They charge \$800 for the first two hours and \$200/hr for each additional hour. The machine that is down conservatively produces \$2000 worth of product an hour.

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Spindle & Lathe Alignment Made Easy!

Manufacturing equipment often has rotating parts that support and guide tooling or the work piece itself. Alignment of this equipment and particularly machines with opposing spindles is important to their accurate and efficient operation. A lathe with its chuck, tool holder and tailstock is a prime example of a machine that operates best when all moving parts are in tight alignment. Pinpoint's laser alignment equipment is a fast and convenient way to align spindles and lathes.

The Microgage Spindle Alignment Kit combines the precision and versatility of the Laser Microgage with fixturing and computer interface to diagnose and align spindles, lathes, tool holders, chucks, tailstocks, and other precision rotating machinery. Measurements of concentricity, offsets, parallelism and other parameters can be made over distances of a few inches to 80 feet!

It works by placing a cylindrical Microgage laser into the chuck or spindle and the laser's beam projects outward along the rotating centerline. A Microgage receiver is secured into an opposing spindle or to a tool holder and receives the light coming from the laser. As the chuck or spindle is turned and the tool holder moved the relative position of the laser beam to the Microgage receiver will move if misalignments are present. The receiver is connected to a handheld Microgage display and precise readings of 0.0001 inch or less are displayed as parts of the machine are turned or moved. Readings are recorded manually or with a laptop running Pinpoint's Capture program.



Spindle Alignment Kit

Spindle alignment software computes runout, concentricity errors, offsets, parallelism errors and other valuable information needed to bring your machinery back into optimal alignment.



Spindle Alignment Kit on a Lathe

Featured Industry: The Machine Tool Industry

The Machine Tool Industry depends upon precision machinery alignment to produce accurate parts, reduce tool wear, extend machinery life, and ultimately to increase profits.

Pinpoint products are actively used for installing machining centers, checking travel on moving assemblies, assisting on the alignment of large sub-assemblies, measuring machine tool runout and alignment, providing preventative maintenance data, bringing damaged production equipment back on line, and more.



- Measuring runout on X, Y, and Z axes
- Aligning lathes and machinery spindles
- Squaring axes on milling equipment
- Installing new machinery & sub-assemblies
- Checking alignment on gantry cutters
- Setting guides & ways for parallel travel
- Checking lathe beds for straightness
- Adjusting bar feeders & steady rests

We hope that you will contact our engineering team to discuss your next alignment project.



Can you find the hidden message?

S S E T I N S E L E A S H O N C
 N D S R H A N U K K A H O M E A
 O R N A M E N T S A L C L I D R
 I E O D S S G R I C I H L S I O
 T I W I W L E T E T G R Y T T L
 A D M T O L T T H I H I I L E I
 R E A I N E N G G U T S W E L N
 O L N O S B I S F R S T R T U G
 C R O N M E L F P F I M E O Y N
 E P I S L E D D I N G A A E O I
 D O N S T O C K I N G S T A R T
 P S A N T A C L A U S S H A R E

Find the words below, circle the letters, and the remaining letters form a message. Good Luck!

- | | | |
|-------------|-------------|---------|
| Fruit Cake | Snowman | Bells |
| Poinsettia | Yuletide | Elf |
| Christmas | Stockings | Star |
| Santa Claus | Hanukkah | Home |
| Traditions | Decorations | Sleigh |
| Ornaments | Sledding | Holly |
| Wreath | Caroling | Dreidel |
| Tinsel | Snow | Lights |
| Mistletoe | Share | |

You can find the answers to these puzzles on our website at www.pinlaser.com

I hope you enjoyed *Straight to the Point!* We would love to hear your ideas and suggestions for future issues. Also, if you have a puzzle you would like published, send an email to our editor, Cindy Lord, cjlord@pinlaser.com.



Be sure to check out our Blog! Website: www.pinlaser.com

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the two employees tried for a half an hour to get the machine working properly before shutting it down so there is a ½ hour worth of scrap. So here you have it:

Employee downtime	\$ 500
Scrap	\$ 6,000
Lost production	\$12,000
Contractor	\$ 800

Total Lost in Downtime:
\$19,300 OUCH!!

Obviously these figures vary based on industry, but my point is this – it adds up and it effects your bottom line. Downtime is going to happen – it's part of life in a manufacturing plant. However, you can play a part in how often. Two words – Preventative Maintenance.

The next question you should be asking is, "Do I need to hire an outside contractor to come in a couple of times a year?" The answer is no. You can do the alignment yourself. Again, why waste critical downtime waiting for a contractor when you can do it yourself whenever you want. Pinpoint laser alignment equipment is designed and built in state of the art, durable, easy-to-use form that fits right onto machinery and can be used by anyone right on the factory floor. An assortment of attachments and add-ons allow engineers, maintenance, and production personnel to adapt this laser alignment capability to almost any industrial application.

Pinpoint

Laser Systems

56 Pulaski Street, Unit 5
Peabody, Massachusetts 01950
U.S.A.

Tel: 1-800-757-5383
Outside the U.S. (01) 978-532-8001
Facsimile: 978-532-8002
E-mail: info@pinlaser.com
Website: www.pinlaser.com

With laser alignment, you can measure and align machinery over great distances and resolve very small motions and identify alignment errors. Readings are shown in simple numbers taking the guesswork out of the process and resulting in better machinery alignment, less downtime, and improving profits.

With lasers contributing to more efficient manufacturing and industrial processes, lost time, wasted materials, and manufacturing inefficiencies are reduced. This all contributes to healthier profits and fewer environmental impacts as U.S. industries thrive.



***Wishing you a Happy and
Healthy New Year!
from all of us at
PINPOINT Laser Systems!***

You have received a complimentary copy of our newsletter. Please look inside for valuable insights on factory alignment and improving efficiency!

**Please visit us on the web!
www.pinlaser.com**

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