



**Joint Production Technology**

**Corporate Headquarters**

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Joint Production Technology (JPT) specializes in difficult to manufacture Generating Head Tooling and other cutting tools which require exacting tolerances.

Since our founding in 1971, JPT has invented and manufactured many different types of generating or motion type tools.



*Above: JPT Single Slide and to your left JPT Double Slide Generating Heads both shown without tooling.*

**Generating Heads are called by many names in our global industry.**

Listed below are examples of the many names used throughout our world:

◆ Generating Heads	◆ Actuating Tools	◆ Compensation Tools
◆ Motion Tools	◆ Feed-out Tools	◆ Eccentric Tools
◆ Gen Heads	◆ Taper Bore Tools	◆ Loss Motion Tools
◆ Rotary Motion Tools	◆ Ramp Angle Tools	◆ Motion Tools with drawbar
◆ ISO Tools	◆ Drawbar Tooling	◆ CNC Motion Tools without machine drawbar
◆ Spring Actuating Tools		



*Above: Diesel Engine Cylinder Boring with six (6) actuating slides*



*Above: ISO View of Actuating Tool*

### Here Is What You Can Do

These different names all describe essentially the same function. That function or purpose is for tool movement to produce one or more of the following:

◆ Internal or External Grooving	◆ Back Boring Operations
◆ Internal or External Form	◆ Multi-Function Operations
◆ Internal or External Spheres	◆ Method to eliminate withdraw lines
◆ Facing Operations	◆ Concurrent Operations

What these many different names for tool movement do not describe is the actual generating or motion methodology that is utilized.

### These Are The Different Methods

Just as there are many names to describe the same function of tool movement there are also many ways to accomplish tool movement. Examples being;

◆ Key actuation methods	◆ Spring actuation methods
◆ Helical actuation methods	◆ Loss-Motion actuation methods
◆ Serration actuation methods	◆ Pressure actuation methods
◆ Crank actuation method	– Hydraulic – Coolant – Air
◆ Rotary actuation methods	



*Pictured above:  
Disc Brake Caliper Double Slide  
Feed-out Grooving Bar.*

Our extensive application experience has taught us that there are many subsets and dynamics that must be evaluated concerning the proper choice of your generating or motion method. An inexperienced company does not know...“What they don’t know, could be a problem”. Such a company will often misapply a given actuation method on an operation that requires a broader base of application knowledge.

As a result, our experienced staff have been called in on many, many occasions to solve a “problem area” (see list below) caused primarily by lack of experience and application know-how.

### Problem Themes

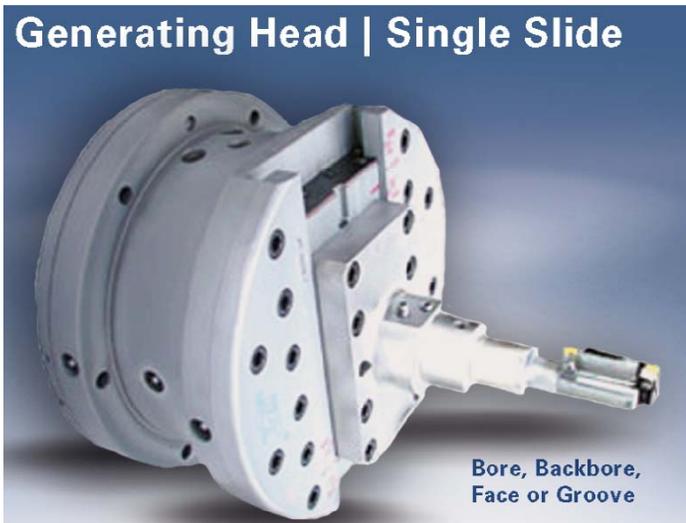
What JPT typically encounters with existing non-performing processes utilizing Generating Heads or Motion Tools are usually one or more of the following problems:

◆ Utilization of an incorrect actuation method.
◆ Correct actuation method but inferior design concept.
◆ Excessive wear on actuating mechanism due to improper material or heat treatment.
◆ Improper manufacturing processes.
◆ Excessive or unrealistic maintenance requirements.
◆ Backlash Issues.
◆ Tool balancing and incorrect balancing methodology.
◆ Mis-application of existing Machine Tool.

**Not All Manufacturers Support a Variety of Actuating Methods**

Only a handful of tool manufacturers worldwide make Generating Heads and Motion Tools. Do to lack of experience, they usually only incorporate one type of actuating method as part of all their product offerings. At JPT we design and manufacture a wide variety of actuating methods because they all have a specific purpose and customer benefit.

**Generating Head | Single Slide**



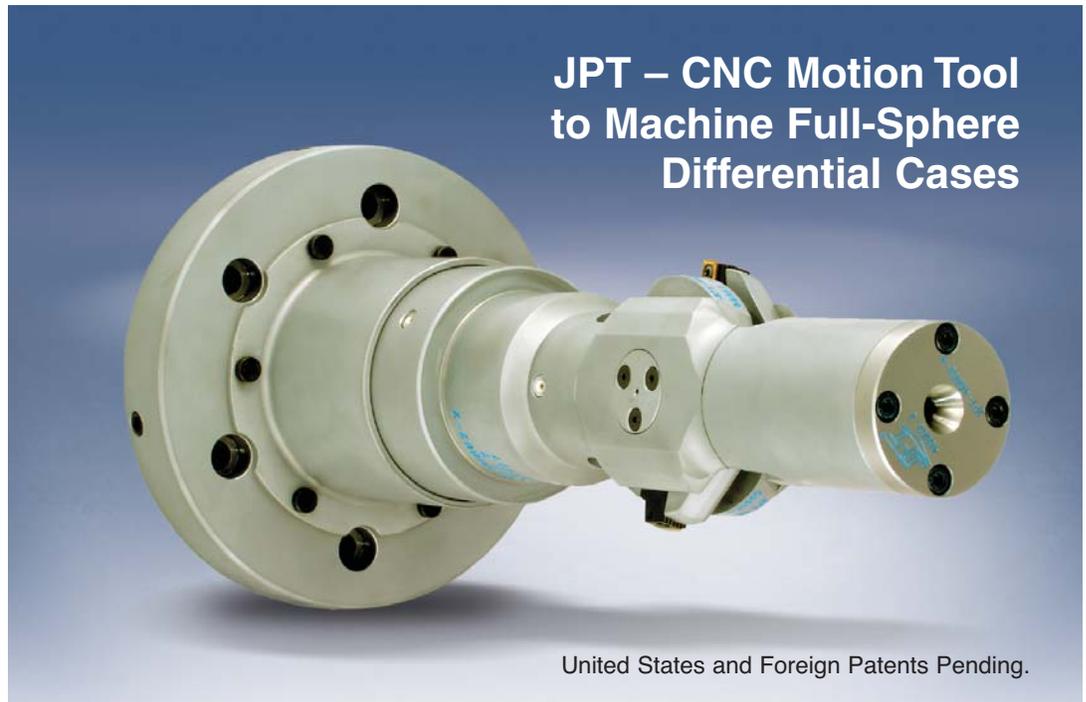
*Single Slide 14-Inch Generating Head.*



*Crank Bore Line Bar with double slide Feed-out thrust face cartridges*



*Knuckle / CNC Motion Taper Bore*



### Generating Heads – Motion Tool Repairs.

JPT repairs all brands.

BUT... is repairing a tool just a "repair"?

OR...is it an invitation for a tooling application expert to evaluate cause-and-affect?

In order to incorporate "continuous improvement", those who repair the tool and / or evaluate an existing problem application must be an expert and have a long-standing position in the industry.

An extensive history of varied, successful applications are pre-requisites in order to be referred to as an EXPERT.

**JPT is your source for repairs and continuous improvement.** Tap into the knowledge; get back up-and-running quickly.

Dial: 1-586-786-0080 | Email: [jpt@jptonline.com](mailto:jpt@jptonline.com)



JPT performs complete in-house design and manufacture of all tooling necessary to machine the finest tolerance features on both Special and CNC equipment. The following workpieces reflect a portion of our capabilities:

#### Driveline Components

- ◆ Differential Cases & Carriers
- ◆ Axle Tubes, Slip Yokes & Shafts

#### Powertrain Components

- ◆ Transmission Housings
- ◆ Transfer Cases
- ◆ Engine Blocks
- ◆ Cylinder Heads & Liners
- ◆ Oil Pumps
- ◆ Pistons & Connecting Rods

#### Braking System Components

- ◆ Disc Brake Calipers & Rotors
- ◆ Anchor Brackets & Plates
- ◆ Wheel, Master & Brake Cylinders

#### Steering Knuckles

#### Intake and Exhaust Systems

#### Air Conditioning Housings

#### Alternator Housings

#### Suspension System Components

*and much more...*



### The JPT® Way

We are Joint Production Technology, “**JPT**” for short.

Our name means we utilize technologies to jointly produce your production products.

We create innovative production part solutions through intensive engineering oriented solutions.

Then ... you can move ahead confidently and ramp-up production.

We desire to be your joint partner for life because we are not just another “me too” supplier.

**Let JPT help you with your Generating Head or Motion Tooling projects today!**

For more information, please contact us:

- Call: 586.786.0080 or Fax: 586.786.0088
- Visit our website: [www.jptonline.com](http://www.jptonline.com)

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