

100 150 200 250 300 350 400 400 450 500 550  
600 600 750



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**The G-Series Straight Side Press: De-  
signed for Superior Reliability,  
Consistency and Versatility.**

- Ideal for progressive, transfer and manual die applications
- Full tie-rod construction with hydraulic tie rod nuts for superior rigidity
- Single and double gear reduction to suit various applications
- Superior frame rigidity characteristics
- Superior off-center load characteristics
- Increased bearing area for slide guidance
- Faster stopping times with real-time display per stroke
- Higher production rates in single stroke mode
- Improved and consistent part quality
- Increased die life

**A Higher Level of Standard Equipment  
for Increased Performance.**

- Massive heavy-duty fabricated design
- Single piece fabricated slide with reinforced plate construction
- Bolster thickness exceeds JIC standards
- Wide windows for transfer and progressive die applications
- Precision plunger guide design
- Precision oil lubricated gibs with controlled oil flow bronze liners
- Hardened and ground helical gears with splined connections
- Motorized slide adjustment from operator panel
- Hydraulic slide lock mechanism
- Pneumatic air counterbalance
- Variable speed main motor
- High torque hydraulic clutch and brake
- Automatic flywheel brake
- Quick responding, dependable hydraulic overload protection
- Free standing electrical console with operators control station
- T-stand for easy set-up and operation
- 100 job memory
- Die safety block with electrical interlock

**The Komatsu Warranty**

When a press is designed as a system, it should be expected to perform as a system without routine tear downs for wear items (the conventional "weak link" in our competitors' presses). That's why every Komatsu G-Series press comes with a One Year Unconditional Warranty on anything that rolls, slides or moves – parts and labor. Unlike other manufacturers, there is no hourly limit - your press is guaranteed to perform 3 shifts a day, 7 days a week, 365 days a year. With Komatsu systems engineering, it's possible to extract the full potential from your press, and the full revenue potential from every job.



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G-Series

Komatsu G- Series Straight Side Power Presses

**Center Drive Design**

Provides high torsional rigidity and superior strength

**Full Tie Rod Construction**

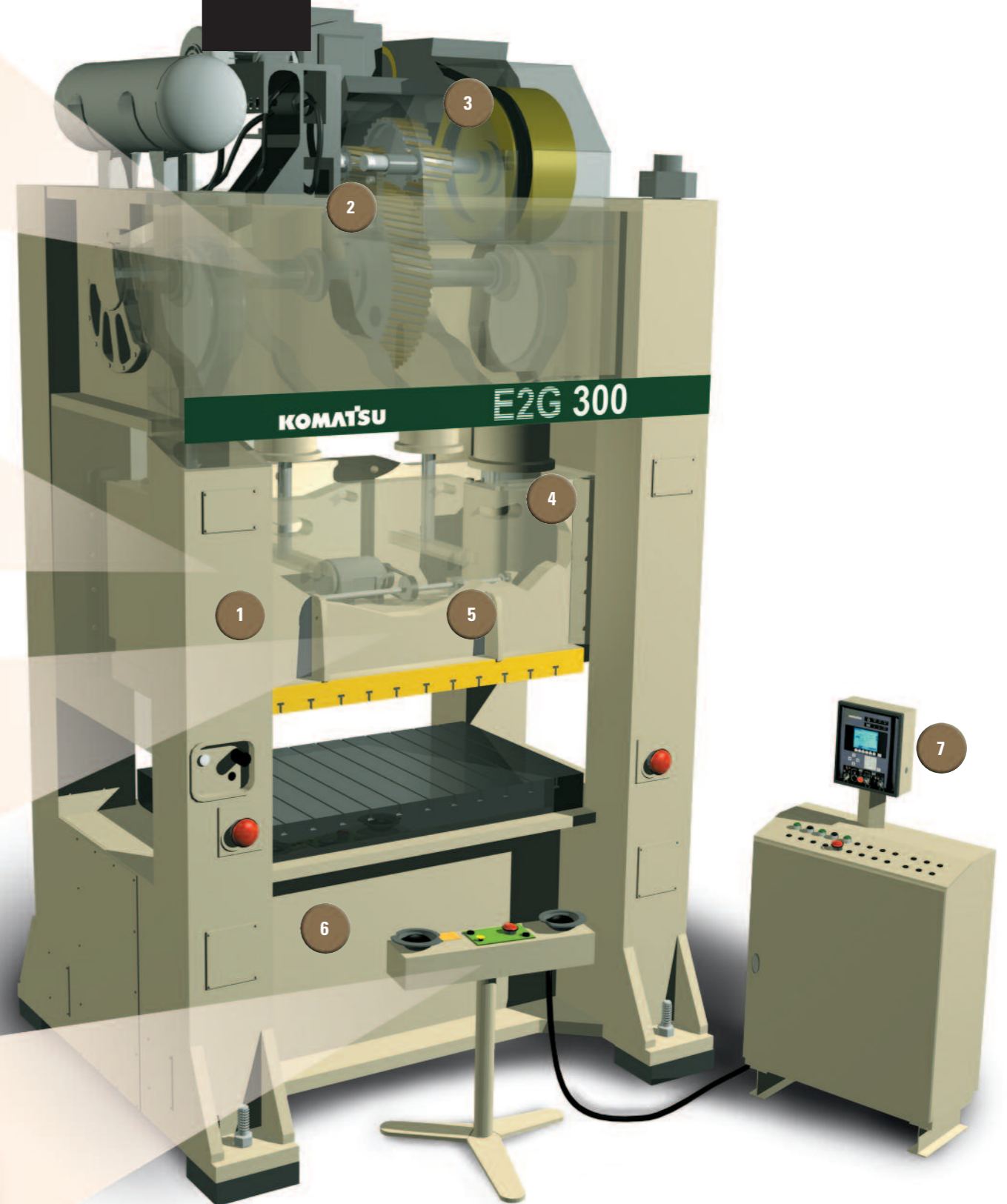
Cross-sectional area of sideframes exceeds many tie-rod designs

**Bolster and Slide Machining**

JIC Standard "T" Slots  
JIC Standard pin holes in bolster

**T-Stand**

Push-buttons necessary for press operation



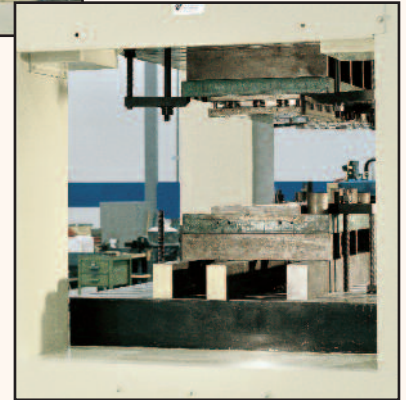


# Standard Features

## 1 Heavy-Duty Welded Steel Construction

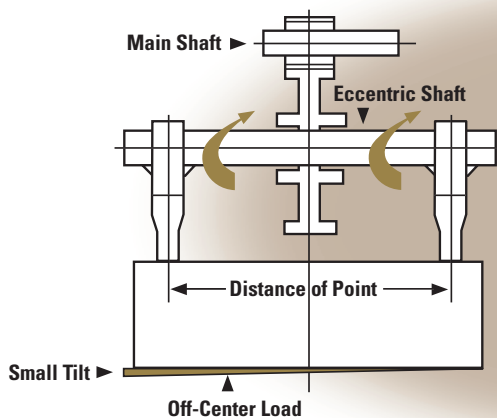
**Engineered quality.** The Komatsu G-Series two-point straight side press utilizes full tie rod construction with hydraulic tie rod nuts to assure the highest level of rigidity and guaranteed performance. The cross sectional areas of the columns combined with the large tie-rod diameters assure superior strength necessary for consistent part quality. The massive welded bed maintains total bed deflection within 0.015"/ft under full load. Komatsu utilizes its welding and frame design technologies to engineer the fabricated slide as a true box-type design with reinforced plate construction providing minimal deflection and consistent precise parallelism to the bolster under varying load conditions.

**Wide-Set Points.** The relationship linking the distance between the slide connection points and the varying workload in the die is basic to part quality and tool life. Too large a point distance cannot withstand concentrated or "off-center" loads, whereas too close of a spacing can induce additional slide tilt and stress on the main shaft. The connection point spacing on the Komatsu G-Series is designed to provide optimum spacing of the connection points to assure top-quality progressive and transfer die operations; the best balance for both conditions.

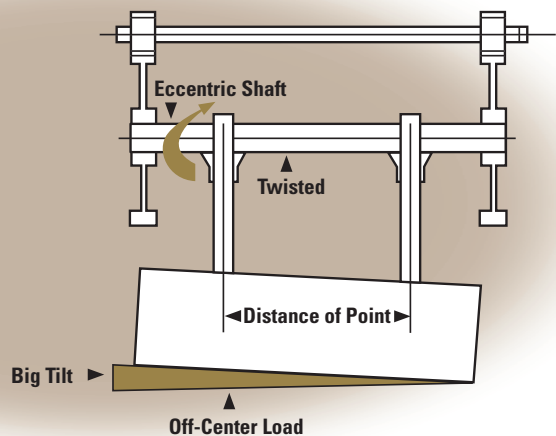


**Rigidity.** The height of the bed and slide is greater than other presses providing optimal vertical stiffness against the die workloads. The bolster thickness also exceeds typical industry standards for higher rigidity. The crown is doweled to the columns for optimum alignment and minimal clearances compared to standard keyed construction. Along with oversized point connections, the Komatsu design ensures uncompromising accuracy and part consistency stroke after stroke.

**Large Window Openings.** Wide windows permit wider material to be used for coil-fed, progressive or transfer applications. This inherent versatility removes the limits of material width and allows your press to be more productive.



**G-Series Press Out-Board Points**



**Typical Straight Side Press In-Board Points**

## 2 Drive and Gearing

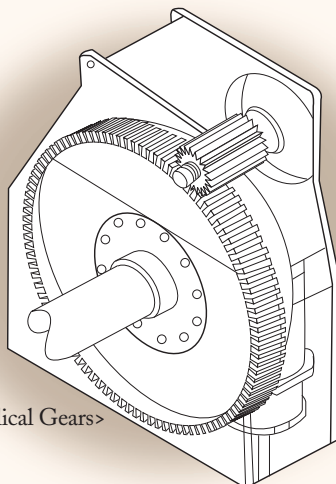
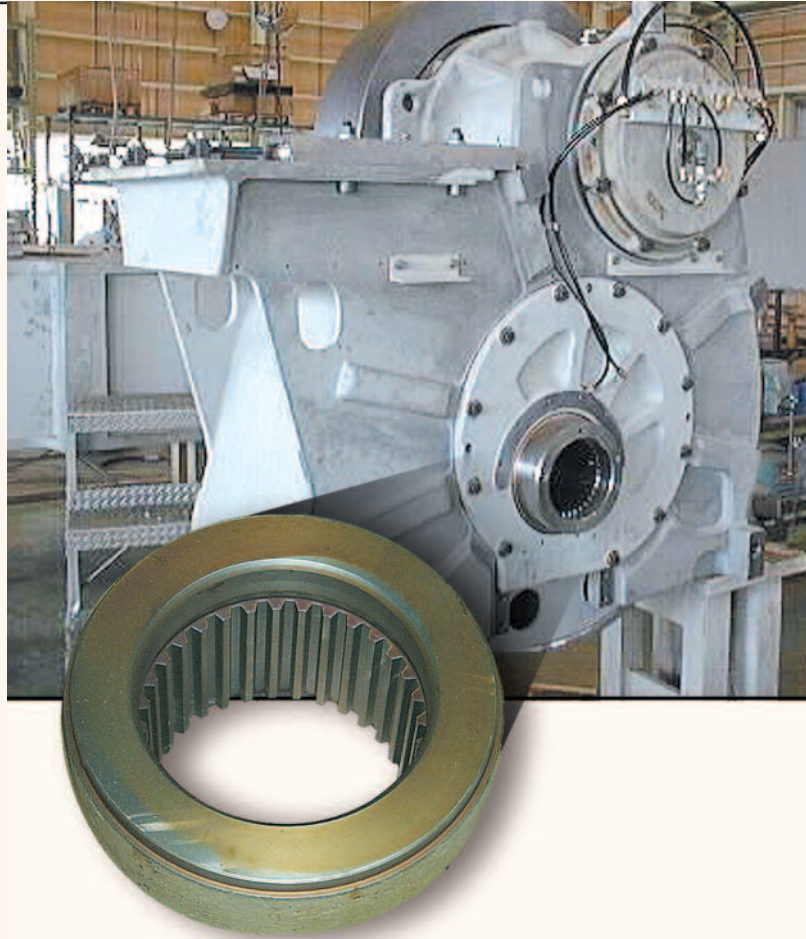
### Higher torque for maximum power transfer.

The Komatsu G-series incorporates a unique center drive design delivering superior performance and maximum power transfer under the most severe workloads. Unlike typical end-drive designs, the Komatsu center drive design provides equal spacing to both connection points. This optimal balanced condition results in superior handling of off-center loads, minimal torsional twist on the main shaft and equal torque at both connection points. Eccentric shafts are employed due to their high torsional rigidity and low deflection characteristics compared to conventional crankshafts.

**Splined Connections.** The eccentric shafts are connected to the main gear by a spline. A standard in Komatsu G-Series presses, hardened and ground helical gears with splined connections provide the most efficient and consistent power transfer utilizing balanced precision contact points. Splines eliminate the rolling and slipping inherent to least costly keyed or taper locked connections.

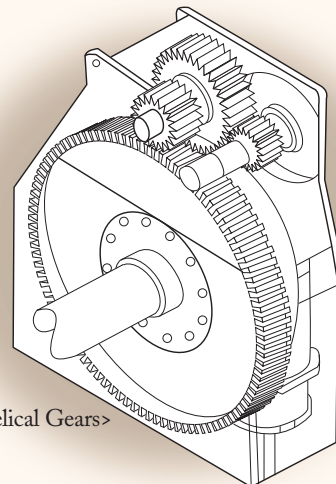
**Configurations.** There are three standard drive and gear configurations to suit various applications.

- A Eccentric Motion / Single Gear Reduction:**  
Provides a constant slide motion velocity throughout the stroke with higher SPM range for typical progressive die applications of blanking and shallow forming.
- B Eccentric Motion / Double Gear Reduction.**  
Provides a constant slide motion velocity throughout the stroke while providing increased torque necessary for heavier forming, blanking and drawing applications.



Helical Gears >

**A Eccentric Motion / Single Gear Reduction**



Helical Gears >

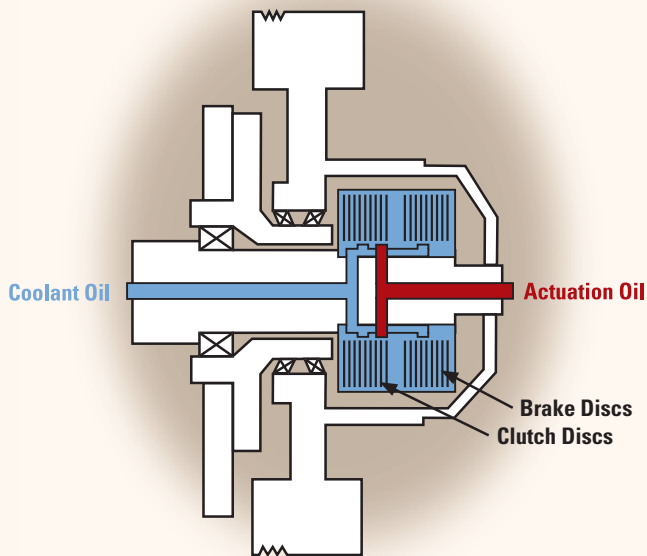
**B Eccentric Motion / Double Gear Reduction**





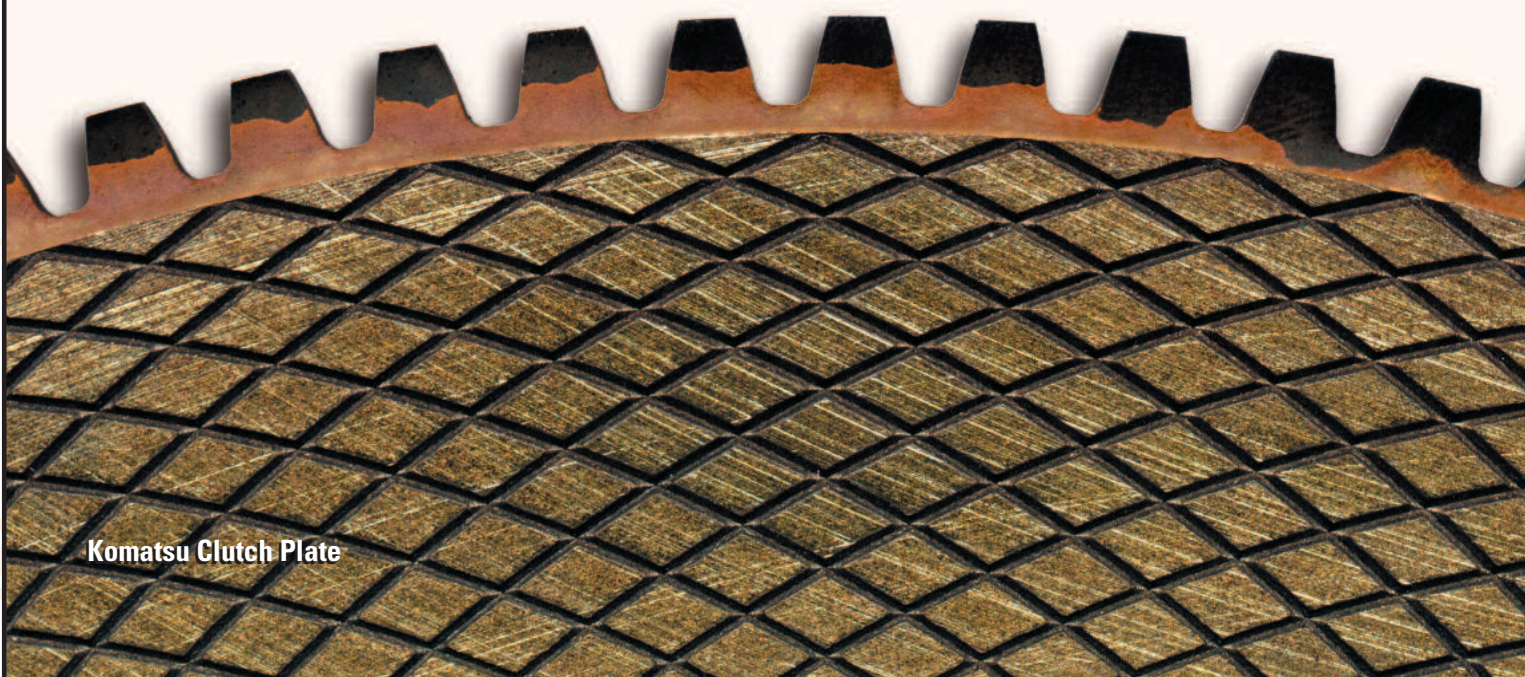
## 3 Hydraulic Clutch and Brake

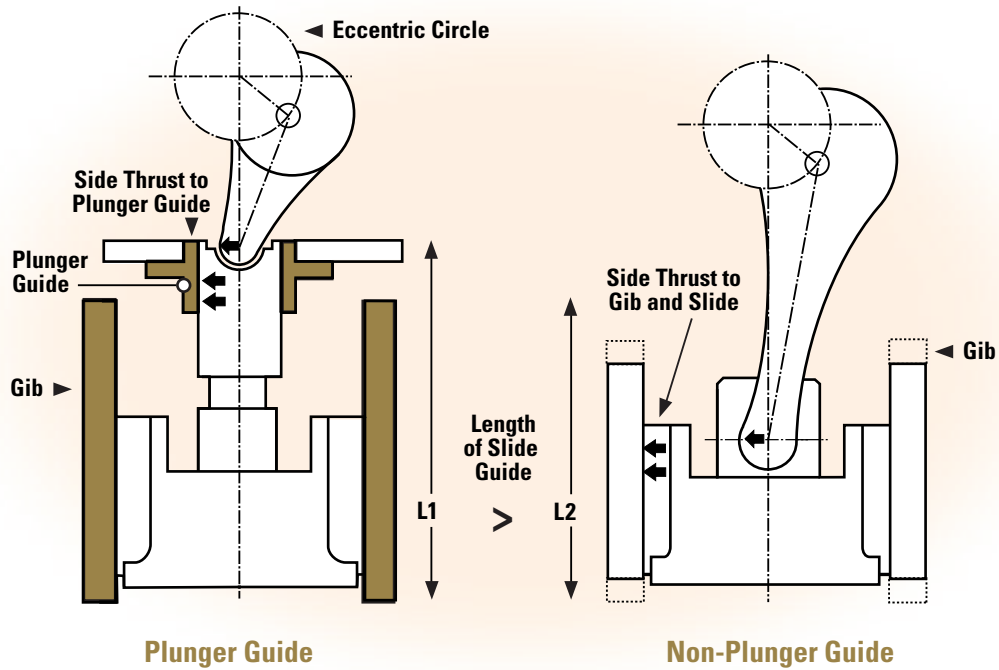
**Better cooling for productivity and reliability.** The multiple disc hydraulic clutch and brake provides the highest single stroke rates and fastest stopping times in all modes of operation. Through decades of field experience in heavy construction equipment, Komatsu employs a patented oil flow pattern to force oil out quicker from between the discs. (See image below) Circulating oil throughout the unit and forcibly cooling it through a radiator on the crown does additional cooling. (See image at right) Conventional air friction clutches or air-cooled clutch and brake units cannot dissipate the normal heat build up inherent in press operation fast enough to offer the higher stroke rate required in auto-sgl or robotic applications. Additionally, the Komatsu design includes a quill mounted fly wheel with the drive shaft supported on oversized taper bearings for increased bearing area and increased heat dissipation.



**Lubrication and filtration for hassle-free maintenance.** The oil for the clutch and brake, drive train and slide gibs are circulated through a 10 micron filter to catch any solid contaminants. The only maintenance required for this closed system is annual fluid changes.

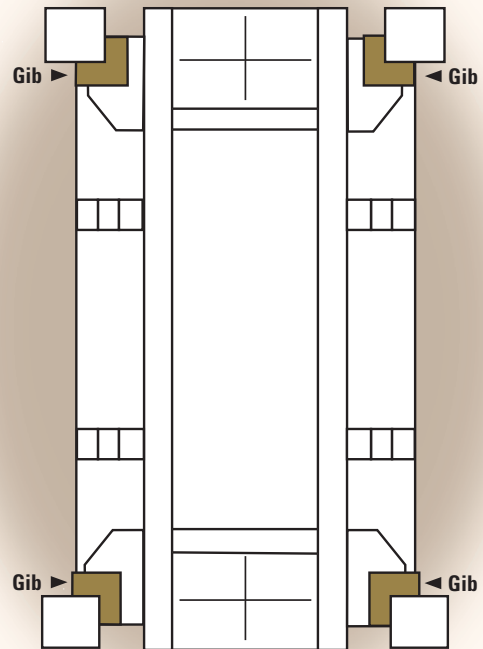
Komatsu Clutch Plate





## 4 Plunger Guide System

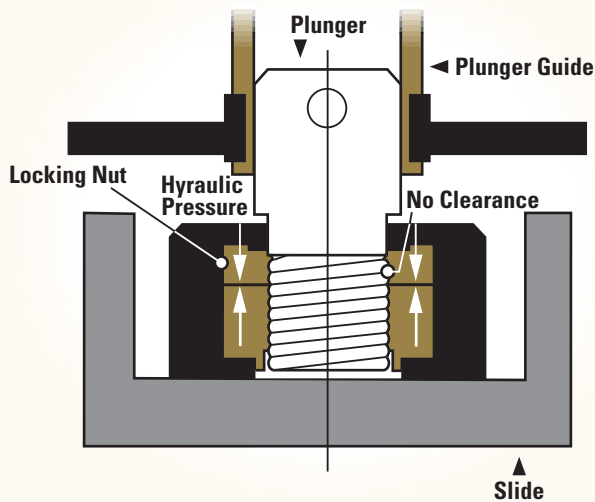
**Designed for high precision and less die wear.** Thrust load from eccentric motion is absorbed by the plunger guide system. The plunger guide is the primary guiding force, preventing side load on the gibs. A size-specific plunger guide is engineered for each different press model, providing maximum performance for each unit. Komatsu employs full length housing gibs guaranteeing the slide gibs always maintain contact through the stroke. (See top view depicted at the right) The 8-point gib system employs forced oil lubrication rather than grease for optimum close gib tolerance settings. This combination of plunger guide and oil lubrication provides gib life 200 times longer than non-plunger guided systems. Together, the plunger guide and gib surface area of the Komatsu G-Series add up to 4-5 times the guiding surface area. Less routine gib maintenance, less die wear and higher part accuracy are the positive end result, which can translate into improved profits for you.



**8-Point Gibs** (top view)

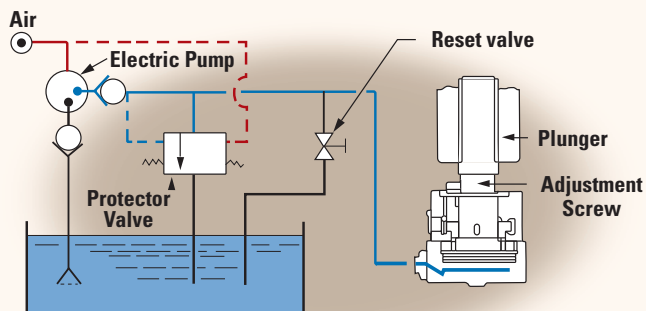
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## 5 Slide Adjustment with Hydraulic Slide Lock

**Consistent quality without die adjustments.** Motorized slide adjustment with electrical upper and lower limit travel protection is employed in all Komatsu presses. The die height indicator is calibrated in 0.001" and is digitally displayed on the operator control panel. Rather than relying on the mechanical brake of the slide adjust motor to maintain the selected die height, the Komatsu G-Series incorporates an automatic hydraulic locking device. Using hydraulic pressure, this locking nut clamps the adjustment screw in two directions removing all clearances and eliminating the movement of the screw caused from normal snap through forces. (See diagram above) This design assures consistent part quality eliminating the need for periodic die height adjustments.



## 6 Hydraulic Overload Protector

**Helps prevent damage to the press and dies.** All Komatsu presses are equipped with a hydraulic overload protector, a standard feature that has been standard for decades, helping to protect against damage to the press or die sets. If the rated load is exceeded, the press stops automatically. Since the hydraulic pressure can be released easily, operations can be resumed smoothly even if jamming occurs.

## 7 SIT IV® - System Integrated Terminal

**Advanced electronics technology provides user-friendly operation and outstanding reliability.** The SIT IV electronic press control unit is designed to provide the fastest, easiest, and most reliable control available for all press functions. Included as standard equipment on the Komatsu presses, SIT IV incorporates all the latest thinking in press control unit design.

- All information necessary for press set-up, start-up, operation and diagnostics is available in one display, at the touch of a button.
- Language terminology and graphics are user-friendly, easily understood by the press operator in plain view in one central location on the digital display. Display also includes plain language description of fault messages.
- SIT IV has the ability to integrate with current press room equipment, such as electronic coil feeds.
- Operator "T-stand" control interface houses all switches and push-buttons required for ordinary press set-up and operation, including a button for slide adjustment.
- Die Data Recording function can store and retrieve data, including cam and fault detection angle as well as production performance. Also includes digital display of "stored" press speed and actual press speed, plus crank angle.
- Alpha-numeric entry of die name and memo data for easy cataloging and referencing.
- 8.4" Color Screen
- Digital Total Counters
  - 1-production, re-settable
  - 1-lot (pre-set), re-settable
- 4 - Electronic rotary cams
- 1- Pneumatic air ejector with cam
- Mode Selections:
  - (1) Off, (2) Inch, (3) Single Stroke,
  - (4) Continuous
- Optional Modes:
  - (1) Automatic Single Stroke,
  - (2) Automatic Continuous



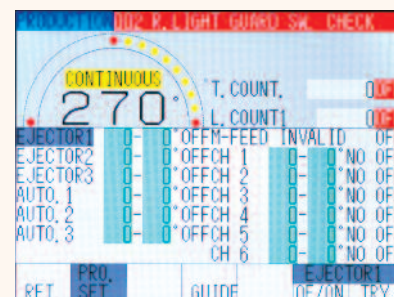
**Simple guidance.** SIT IV displays operational procedure guidance for select press functions. Intuitive, user-friendly prompts guide press operators in a logical series of steps, for faster, more reliable press set up and operation.

### Extensive use of electronics gives outstanding reliability.

- Solid-state control
- Integrated Circuits are used for all control circuits
- Increased safety, longer operation life and high reliability

### Digital display for improved operation performance.

Automatic operation setting and die set-up functions are easier and faster for press operators, with precise, reliable settings every time. To protect the integrity of all electronic systems and provide additional safety, monitor lamps indicate defects in circuits of all electronic systems, and faults are detected instantly.



# Optional Features

**Electronic Load Monitor (2-channel).** Load monitors are available to continuously monitor loads in all press operations, including blanking, bending, drawing, etc. The monitor also detects die overloads and underloads during operation. In addition, balanced die load is achieved by measuring the off-center-load, thus extending press and die life.

**Increased Job Storage Memory**

**Vibration Isolating Pad**

**Emergency Stop Receptacle**

**Pneumatic Die Cushions**

**Slide Knockout Bars** (mechanical)

**Air Ejector with Cam**

**Adjustable Hydraulic Overload**

**Coil Line Interface**

**Photoelectric Safety Equipment**

**Quick Die Change Interface**

**Additional set of 4 Electronic Rotary Cams**

**Quick Die Equipment**

Hydraulic die clamps available in either lever or cylinder type.

Hydraulic die lifters.

Mechanical draw out rails.

(note: re-machining of "T" slots may be required)

**Warning** - For protection of the operator, point-of-use guards should be used at all times. The G-Series press does not include O.S.H.A. recommended point-of-protection guards.

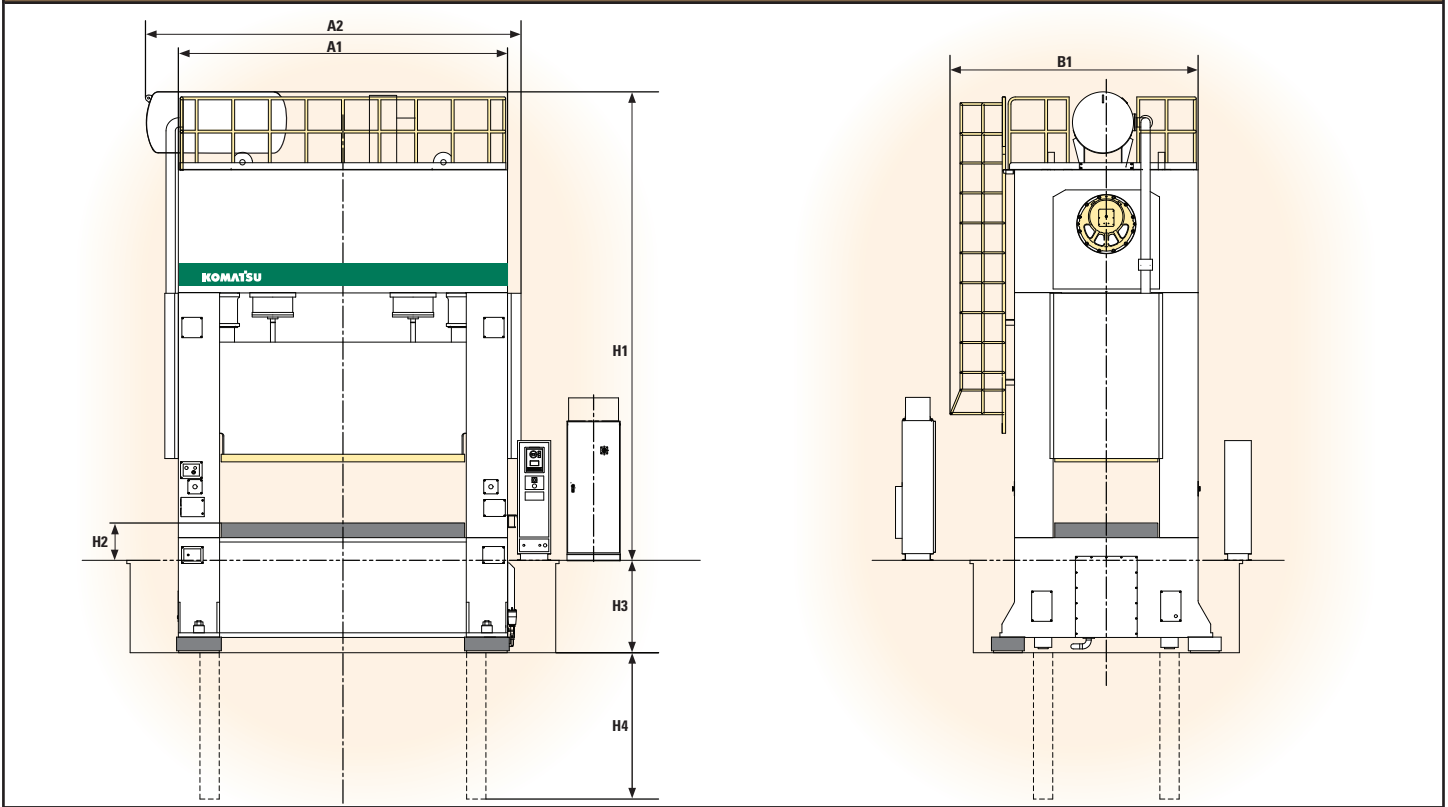
**Note** - Brake monitor and control reliability. This control meets the current requirements of O.S.H.A. Standards Section 1910.217 and ANSI B11.1.

**Automation** Complete turn-key Komatsu designed press systems including coil lines, die carting and systems engineering tailored to your specific application.





## General View



## Specifications

Model		E2G300				E2G400				E2G600				E2G800					
		(A)	(B)	(C)	(D)	(A)	(B)	(C)	(D)	(A)	(B)	(C)	(D)	(A)	(B)	(C)	(D)	(E)	(F)
Capacity	US Ton	330	330	330	330	440	440	440	440	660	660	660	660	880	880	880	880	880	880
Rating Point	INCH	.26"	.51"	.26"	.51"	.26"	.51"	.26"	.51"	.51"	.51"	.51"	.51"	.51"	.51"	.51"	.51"	.51"	.51"
Stroke	INCH	10.2"	14.1"	10.2"	14.1"	10.2"	16.1"	10.2"	16.1"	15.7"	19.7"	15.7"	19.7"	19.7"	23.6"	19.7"	23.6"	19.7"	23.6"
SPM	SPM	30 - 65	20 - 40	30 - 65	20 - 40	30 - 65	20 - 40	30 - 65	20 - 40	20 - 40	15 - 30	20 - 40	15 - 30	15 - 30	15 - 30	15 - 30	15 - 30	15 - 30	15 - 30
Die Height	INCH	37"				36.2"				36.2"				43.1"					
Slide ADJ	INCH	10.2"				12.2"				13.7"				13.7"					
Slide W x D	INCH	98.4" x 48"		122" x 61"		122" x 61"		144" x 61"		144" x 61"		168.1" x 61"		144" x 61"		168.1" x 61"		190.1" x 61"	
Bolster W x D	INCH	98.4" x 48"		122" x 61"		122" x 61"		144" x 61"		144" x 61"		168.1" x 61"		144" x 61"		168.1" x 61"		190.1" x 61"	
Side Window Opening	INCH	48.8"		63"		63"		63"		63"		63"		78.7"		78.7"		78.7"	
Counter bance capacity	LBS	7055	10,365	10,365	10,365	10,585	11,685	11,685	11,685	17,640	17,640	22,050	22,050	17,640	17,640	22,050	22,050	22,050	22,050

## Dimensions

Width	A1	INCH	136.6"		160.3"		165"		187"		180.8		222"		221.4"		244"		267.7"	
	A2	INCH	139.4"		163"		167.8"		190.6"		221.9"		249"		249.6"		273.2"		296.8" / 396.8"	
Depth	B1	INCH	126.4"		140.6"		145.7"				146.5"				170.5"					
	H1	INCH	250.4"				275.8"		282.5"		292.7"		301.4"		337.7"					
Height	H2	INCH	52.8"				60.7"		61.5"		37.5"				37.5"					
	H3	INCH									39.4"		47.3"		82.7"		94.5"			
	H4	INCH							67"		86.7"				96.5"					

Straight Side Press capacities up to 3000 tons, consult Komatsu for your custom specifications

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