OBW

Komatsu OBW Series Gap Power Presses

110 150 200 250

KOMATSU

HIGH PERFORMANCE SHOULD NOT BE OPTIONAL

We take our heritage seriously.

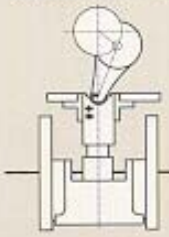
While the history of the Komatsu press division stretches back over 75 years, the true strength of Komatsu press technology comes from a background of engineering triumphs in diverse fields. Lessons learned in Komatsu's networks throughout the world, including our heavy equipment division and Komatsu Electronics Corporation, have continued to shape the durability and innovation of every Komatsu press.


Komatsu Earthmover

1924 **The Komatsu Press Division is born of rock and mud.** The current Komatsu hydraulic clutch/brake unit is a direct descendant of the same technology that has powered our 240 ton earth movers for the last 80 years. In the mining fields, there is no convenient time or place for periodic maintenance stops. Building on this philosophy, the Komatsu press division applied this technology to create machines designed to work every shift, day after day and year after year with nothing more than a simple hydraulic oil change. The low maintenance mantra was created.

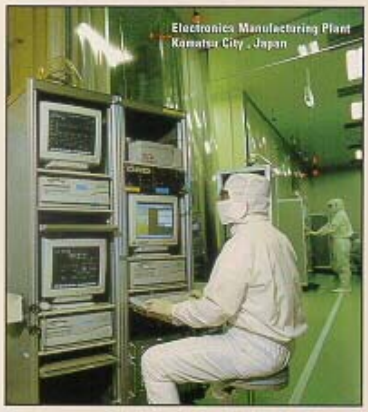

The Komatsu Low Maintenance Clutch / Brake System

1954 **Komatsu perfects its proprietary Plunger Guide System.** Komatsu has proven time after time that a plunger guide system produces 30 percent longer die life and improved part quality. Remove the gibs from a Komatsu press and the slide is still rock steady. The plunger guide eliminates virtually all lateral movement, allowing tighter gib tolerances and precision slide movement. Now that other manufacturers are following suit, it's no surprise to us. Our 40 years of experience with plunger guides has definitely provided the benchmark for our time-tested design.


The Komatsu High Performance Plunger Guide System

1964 **Komatsu Press Division wins Deming Prize for engineering excellence.** It wouldn't take long before the rest of the world acknowledged the intuitive features of Komatsu press design. With the Deming Prize in 1964, Komatsu became the first Japanese press manufacturer to win this coveted engineering award.


Heavy Machinery Plant
Chattanooga, Tennessee



1982 **Komatsu designs its first proprietary electronic control unit – the System Integrated Terminal®** As far back as 1982, Komatsu realized the advantage of designing an electronic press control interface that could take full advantage of the superior engineering technology in a Komatsu press. Through it's relationship with the Komatsu Electronics Corporation, the Komatsu press division was able to design SIT - a control unit capable of withstanding 10G shock loads common to the press room environment.

1994 **Komatsu receives the ISO Certification.** With the Komatsu Press Division supplying press equipment to shops the world over, it was important for Komatsu to adopt the ISO certification both for safety and peace of mind for its customers. From this point on, every Komatsu press closely follows the universal worldwide standards for press safety and regulatory compliance.

2000 **Komatsu forges ahead with it's newest generation of advanced electronic press control - SIT II.®** Incorporating all the latest thinking in press control unit design, SIT II is designed with user-friendly controls, a plain language display, and intuitive features. SIT II controls allow press operators to shorten set-up times from hours to minutes, increasing productivity and profits. With SIT II, Komatsu has raised the bar in the new millennium, forcing other manufacturers to reevaluate press control design and its dramatic effect on productivity.

SIT II Input Control Panel

The OBW Gap Frame Press:
Designed for Superior Reliability and Consistency.

- Ideal for progressive, transfer or manual die operations
- Machine weight capacities are 30%-40% heavier than comparable straight side models
- Superior deflection characteristics
- Superior off-center load characteristics
- Increased bearing slide guiding area
- Faster stopping times with actual digital display
- Higher production rates in single stroke mode
- Higher counter balance capacity
- Improved part quality
- Increased die life

A Higher Level of Standard Equipment for Increased Performance

- Heavy plate, rigid frame construction
- Bolster thickness exceeds JIC standards
- Wide, 2-point bed ideal for transfer and progressive applications
- Single-piece, heavy duty cast slide
- Precision plunger guide design
- Push-button controlled, motorized slide adjustment
- Mechanical slide lock mechanism
- Eccentric drum main drive
- Double gear reduction for greater torque capacity
- Precision oil-lubricated long 6-point gibs
- Hardened and ground helical gears
- Variable speed main motor
- High-torque wet clutch and brake
- Flywheel brake
- Quick-responding, dependable hydraulic overload protector
- Shock resistant, pendant-mounted control
- T-stand for easy set-up and operation
- 10 Job memory
- Safety block with 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 OBW 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.

KOMATSU

HIGH PERFORMANCE SHOULD NOT BE OPTIONAL

Eccentric Drum Main Drive

Provides high torsional rigidity and superior strength

Single Piece Cast Slide

No adapter plate required

Bolster and Slide Machining

JIC Standard "T" Slots
JIC Standard pin holes in bolster
Prepared for Mechanical Knockouts - JIC knockout pattern

T-Stand

All switches and push-buttons necessary for ordinary press operation, including automatic slide adjustment

OBW

Komatsu OBW Series Gap Power Presses

Standard Features

1 Frame and Bolster

Engineered quality. While most gap presses are associated with a greater level of deflection, the Komatsu OBW series breaks the stereotype by maintaining the lowest deflection available - less than 2/60ths of 1 degree of deflection at full load in a 275 ton press. No matter what size of job you spec with a Komatsu OBW, there is no compromise to the characteristics of the frame or the accessibility to the bed area.

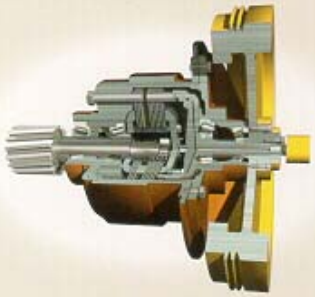
The highly rigid frame, slide and bolster combine to hold all deflection characteristics to a minimum, setting the new industry standard. Also, the wide point spacing enables these presses to stand up well to eccentric loads.

2 Double Reduction Gearing

Higher torque for maximum power transfer. Komatsu's press drive train is based around a high-quality eccentric drum for high torsional rigidity and superior strength characteristics compared to crankshaft designs. The heavy-duty drive is equipped with double reduction gearing for the eccentric drum, allowing up to 3 times the load bearing area of a simular crankshaft design.

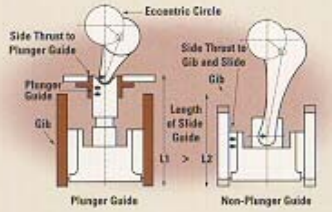
3 Clutch and Brake

Productivity and reliability. The wet, multiple disc clutch and brake provides higher single stroke operation rates through-put while providing quicker stopping time in all modes of operation. The unit is housed in a continuous-lube, separate oil bath from the main drive, providing superior heat dissipation capabilities. No maintenance operations are normally required, other than an annual fluid change.



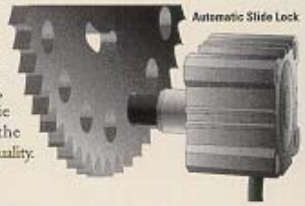
4 Plunger Guide System

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 also employs full-length gibs that capture the entire length of the slide guide. Gib tolerances are set to Komatsu's tolerances of 0.0015" nom. per gib with oil (not grease) lubrication, allowing them to last up to 200 times longer than conventional gibs. Together, the plunger guide and gib surface area of the Komatsu OBW add up to 4-5 times the guiding surface area of our nearest competitors. Less routine gib maintenance, less die wear and higher part accuracy are the positive end result, which can translate into improved profits for you.



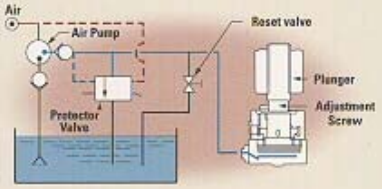
5 Slide Adjuster

Easy-to-use motorized slide adjustment. A motorized slide adjustment with digital display is standard. The die height is displayed in metric units of 0.01mm for precise slide adjustment. For extra security, the OBW press relies on precision adjustment screws and nuts rather than chains with a limit switch for overload protection in either direction. The OBW press is also equipped with a positive automatic slide adjustment lock. The unit locks in two directions, preventing changes in die setting and maintaining the consistency of the stamping quality.



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 II® - System Integrated Terminal

Advanced electronics technology provides user-friendly operation and outstanding reliability. The SIT II 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 OBW press, SIT II 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 II 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 for 10 dies, 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.

- 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 II 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
- Cross-checking duplex circuits for clutch brake control are used on each stroke (patented)
- Increased safety, longer operation life and high reliability

Digital display for improved operation performance. Digital display of the crank angle and electronic angle detectors provide increased accuracy for press operations. 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.

Emergency Stop Receptacle

Pneumatic Die Cushions

Vibration Isolating Pad

Slide Knockout (mechanical)

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)

Photoelectric Safety Equipment

Additional set of 4 Electronic Rotary Cams

Air Ejector with Cam

Adjustable Hydraulic Overload

Quick Die Change Interface

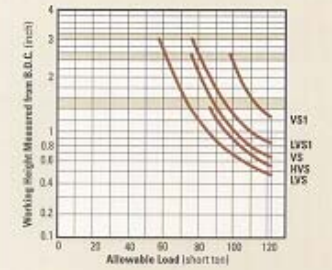
Coil Line Interface

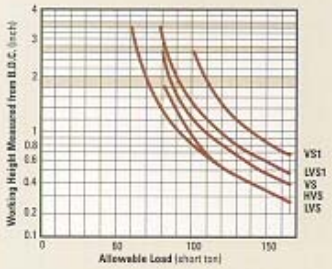
Graphic Load Monitor with Reverse Load

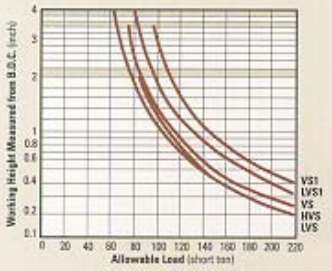
Warning - For protection of the operator, point of use guards should be used at all times. The OBW press does not include O.S.H.A. recommended point of protection guards.
Note - Brake monitor and control reliability. This control meets the current requirements of O.S.H.A. Standards Section 1910.217 and ANSI B11.1.

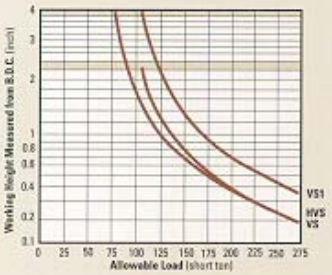
Automation Complete turn-key Komatsu designed press systems including coil lines, die carting and systems engineering tailored to your specific application.

Capacity Curves

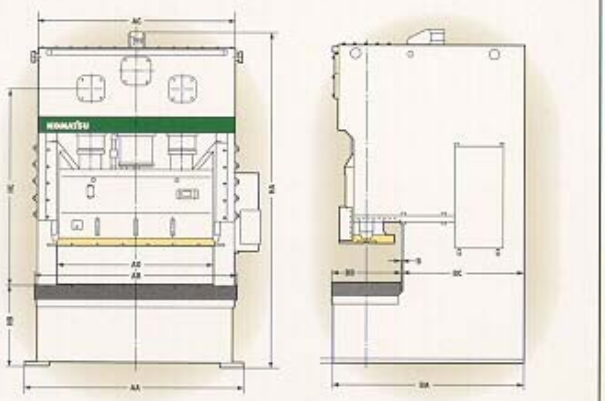








General View



Dimensions inches

Item	Width			Depth				Height			Rear Opening
Model	AA	AB	AC	BA	BB	BC	B	HA	HB	HC	AD
OBW110	82.7	74.8	70.9	77.0	27.6	51.6	0.2	131	35.4	79.1	55.9
OBW150	92.1	82.3	80.3	82.3	29.9	53.7	0.4	138.5	35.4	83.9	63.8
OBW200	104.3	95.3	92.5	91.7	33.5	59.3	0.2	156.6	39.4	96.1	73.6
OBW250	115.8	106.3	103.9	103.5	37.4	67.7	0.2	167.6	43.3	101.6	83.5

Specifications

Model	OBW110					OBW150					OBW200					OBW250		
Type	VS	LVS	VS1	LVS1	HVS	VS	LVS	VS1	LVS1	HVS	VS	LVS	VS1	LVS1	HVS	VS	VS1	HVS
Max. Capacity U.S. ton	121					165					220					275		
Rating Point in.	0.66	0.47	1.25	0.82	0.55	0.39	0.27	0.67	0.47	0.27	0.23	0.19	0.39	0.31	0.19	0.19	0.35	0.19
Stroke in.	7.09	9.06	7.09	9.06	4.33	7.87	9.84	7.87	9.84	5.12	9.84	11.81	9.84	11.81	5.91	11.81	11.81	5.69
Variable Speed s.p.m.	35-70		25-50		50-100	35-65		20-40		40-85	30-50		20-40		35-70	20-40	15-30	25-65
Shutheight in.	15.75	14.76	15.75	14.76	15.75	18.11	17.13	18.11	17.13	18.11	19.68	18.70	19.68	18.70	19.68	21.65		
Slide Adjustment in.	3.94					3.94					4.72					4.72		
Slide - Width in.	55.12					62.99					72.83					82.68		
Slide - Depth in.	20.47					22.83					25.59					27.56		
Bolster - Width in.	74.80					82.28					95.28					106.30		
Bolster - Depth in.	27.56					29.92					33.46					37.40		
Bolster - Thickness in.	6.30					6.69					7.09					7.48		
Max. Upper Die/Tooling lb.	2640					3300					4400					4400		
Main Motor HP	15					20					30					40		

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