



**HYDRAULIC
STRAIGHTENING
PRESSES**

HC SERIES



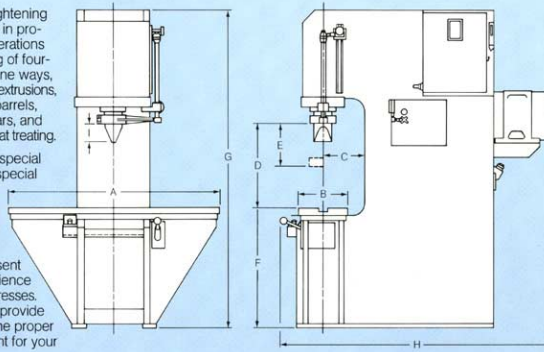
CATALOG 280



HYDRAULIC STRAIGHTENING PRESSES – HC-SERIES OPEN GAP TYPE 12-200 TONS

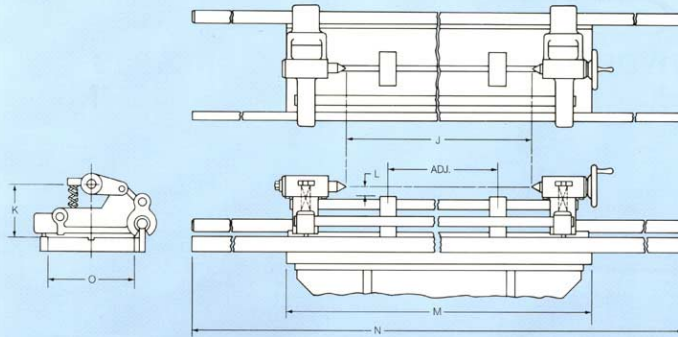
Greenerd gap type straightening presses are widely used in production straightening operations such as the straightening of four-wheel drive axles, machine ways, injection molding screws, extrusions, aircraft weldments, rifle barrels, and precision shafts, gears, and bars to be ground after heat treating.

Straightening requires a special type of hydraulic press, special controls, and fixturing. The standard presses and fixtures shown in this catalog meet the requirements of many applications. They represent nearly 50 years of experience in building straightening presses. Greenerd engineers will provide assistance in selecting the proper size press and equipment for your particular requirement.



All dimensions in inches

KEY	TONS		12		20		40		50		75		110		150		200	
	MODEL NO.		HCS-12	HCS-20	HCS-40	HCS-50	HCS-75	HCS-110	HCS-150	HCS-200								
	Ram speed, close IPM		147	94	84	84	41	42	32	24								
	Ram speed, press IPM		128	84	72	55	35	39	29	22								
	Ram speed, open IPM		241	189	171	131	79	86	66	47								
A	Table, left to right		48	48	60	72	72	84	84	84								
B	Table, front to back		12	12	14	16	16	18	18	18								
C	Throat		11	11	12	12	13	14	15	16								
D	Daylight (max)		24	24	24	24	24	24	24	24								
E	Stroke		12	12	12	18	18	18	18	18								
F	Floor to table		36	36	36	36	36	36	40	40								
G	Overall height		92	92	95	112	113	114	121	122								
H	Front to back		70	70	77	82	84	90	94	98								
I	Ram nose height		6	6	6	6	8	8	10	10								
	Cylinder bore		4	5	7	8	10	12	14	16								
	Ram dia		2 1/2	3 1/8	5	5 1/2	7	8 1/2	10	11 1/4								
	System pressure, max psi		1910	2038	2080	1990	1910	1947	1990	2000								
	Motor HP, 1200 RPM		10	10	20	20	20	30	30	30								
	Wgt, approx lbs		4000	5500	7200	10500	14000	15000	20000	25000								



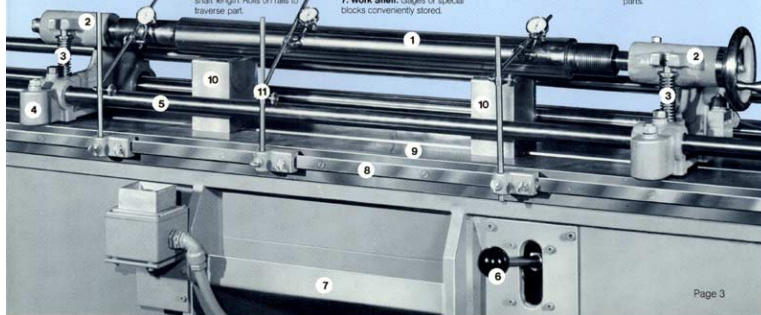
**SPRING LOADED
CENTER TYPE
WORK SUPPORT
CARRIAGE**

All dimensions in inches

KEY	TONS	12	20	40	50	75	110	150	200
J	Between centers (Max.)	48	48	60	72	72	84	84	84
K	Table to centerline	6	6	6	6	6	Consult Factory		
L	Centerline to blocks	1	1	1 1/2	1 1/2	2	Consult Factory		
M	Press table length	48	48	60	72	72	84	84	84
N	Rail length	72	72	84	96	96	108	108	108
O	Table F-B	10	10	10	10	10	Consult Factory		

The above dimensions are standard. Consult factory for special requirements. The press table length (M) will sustain full tonnage. That length determines the maximum part subsection length that can be straightened in a length stroke. The standard table is furnished with three pairs of springs to support varying safe weights up to 140 lbs. Consult factory for heavier parts.

- 1. Work.** Straight, stepped, or tapered shafts with splines, or with mounted gears can be straightened on the table.
- 2. Centers.** One fixed, one retractable supports work for gaging or traversing.
- 3. Springs.** Buyer to specify maximum weight of part. Hold work up for gaging... compressed when part is being straightened. Limit switch prevents inadvertent overtravel.
- 4. Carriage.** Adjustable for shaft length. Rolls on rails to traverse part.
- 5. Tie Rods.** Length of tie rods and rails determines maximum length of part that can be accommodated between the centers.
- 6. Variable Pressure Control Lever.** See page 4.
- 7. Work Shelf.** Gages or special blocks conveniently stored.
- 8. Gage Rail.** Allows for positioning of gages.
- 9. Press Table.** Length of table determines maximum length or section of part that can be supported by straightening blocks.
- 10. Straightening Blocks.** Positioned under work. Slide left or right in keyway on press table. Support work during application of pressure.
- 11. Indicators and Stands.** For reading run-out in cylindrical parts.



SPRING-LOADED ROLLER VEE BLOCKS



Spring-loaded balls in the Vees of these blocks allow for straightening, positioning, and checking of non-centered work.

MODEL	MIN. DIA.*	MAX. DIA.*
VBR-1	1½"	2½"
VBR-2	2½"	3½"
VBR-3	3½"	4½"
VBR-4	4½"	6"

*Please specify maximum weight of part when ordering.

ADJUSTABLE HEIGHT ANVILS



For straight shafts as well as stepped diameters and tapers. Adjustable for height. Slides laterally in keyway.

MODEL	MIN. HT.*	MAX. HT.*
AAV-1	4½"	5½"
AAV-2	5½"	7"

*Measured from table to top of anvil.

PLAIN VEE BLOCKS



A pair of solid Vee blocks for round work. Adjust laterally in keyway.

MODEL	MIN. DIA.	MAX. DIA.
VB-1	¾"	2"
VB-2	2"	4"

PLAIN STRAIGHTENING BLOCKS



Plain straightening blocks with choice of heights over the table. Blocks slide laterally in the keyway to support work while being straightened.

MODEL	HEIGHT
SB-1	5½"
SB-2	5"
SB-3	4½"
SB-4	4"

VARIABLE PRESSURE CONTROL

Ram movements and pressure are controlled by this simple time-tested, sensitive lever control. The ram can be advanced to the work and make contact with a feather touch. Further downward pressure on the lever increases the pressure on the work proportionally. Release of the lever releases pressure. Users can straighten work to close tolerances. Operators prefer this control because it provides a "feel". Overtravel mistakes are avoided and damage to work is prevented. A push button engages the left hand during straightening.



RAIL EXTENSIONS AND SUPPORTS

Additional rail lengths and supports can be ordered to accommodate and traverse longer shafts.

Consult factory for details.



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