(PRODUCER)



HOT CHAMBER DIE CASTING MACHINES & AUTOMATION EQUIPMENT

The Producer Company of Tainan, Taiwan is one of the leading manufacturers of hot chamber die casting machines and automation equipment in the international market since 1979. For over four decades we have been dedicated to producing the highest quality and highest technology equipment to a variety of operations all over the world.

Producer's headquarters in Tainan, Taiwan includes a state of the art manufacturing building with its own engineering, machining and assembly facilities as well as a complete testing and research and development capability. It is one of the only companies in Asia with this capability enabling it to maintain control over the quality of its products. Unlike other companies in the region that rely on subcontractors for much of their work, Producer owns their facilities and maintains European and North American techniques and standards in its production line. We invite customers to visit our facility and encourage them to tour the inspection area, inventory, machine shop and assembly area.

We have sold and installed many new machines to a variety of customers ranging from smaller job shop die casters to large captive operations with dozens of machines. We can arrange visits and encourage our potential customers to ask for references to hear first hand from satisfied customers.

In the highly competitive die casting business, it is extremely important to know your supplier and trust their service. We deliver what we promise and stand behind our products. Don't take our word for it; ask our growing customer list.

The heart of any die casting machine is the clamping system. Our machines have been designed and built to provide years of trouble free service. We have selected materials, components and designs, which have been proven in some of the harshest environments possible. Many manufacturers have built machines that appear similar to ours, but analyzing their entire structure, our machines come out on top.



We start out with our unique 6-tie bar design which enables us to provide additional support through the entire three platen assembly. Our platens are cast steel and heat-treated. We do all of our own machining on CNC equipment in our own facility to insure strict control of tolerances. All of our linkage components are FDC55 and heat treated after CNC machining. Tie bars, guide bars and toggle pins are also alloy steel and heat-treated. Our tie bars are N2 heat-treated for durability.



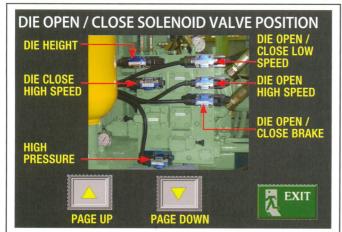
Our toggle linkage uses
FCD55 material. In an effort
to constantly improve our
product line we have
upgraded all our linkage
systems to provide automatic
central lubrication as
standard. This system
provides efficient delivery of
the proper amount of
lubrication as required and
has a pump with adjustment
for frequency and duration of
the lubricant delivery.

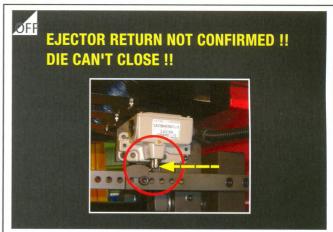


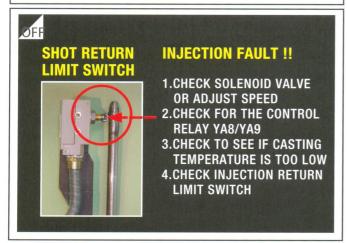
The control systems of all of our machines are designed to provide the highest level of reliability combined with the simplicity of a user-friendly touch screen interface to maximize production and minimize training requirements. We utilize a proven industrial grade programmable logic controller combined with an operator interface that allows control and setup of all operating parameters as well as providing diagnostics and memory for all machine functions.

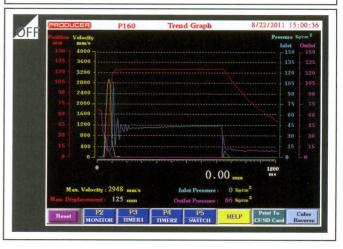


Operators and maintenance personnel can monitor and troubleshoot the entire system from the convenient screen. A live action machine profile, timer and counter access, operation mode changing, core sequencing and input and output monitoring are accessed from this interface.









Our latest innovation is the addition of a color touch screen operator interface which incorporates photographs of machine systems whenever an error message appears. This unique feature exclusive to our machines are a major improvement in trouble shooting technology. With the addition of the optional servo controller with proportional valve, we have included controls on the interface for setting of the system and an optional shot monitoring system including trend graphs.



The shot ends of our machines are constructed to withstand the severe heat and pressure present in all hot chamber die-casting shops. Heavy welded A frames straddle the furnace and allow flexibility for launder systems. The A frame, shot cylinder and front platen are water-cooled. Large diameter guide bars are furnished in addition to the nozzle adjustment, which is hydraulically operated and can be set to break away or remain fixed at the customer's option. Because of our six tie bar design, the toggle mechanism can be retracted away from the nozzle area for easy access and maintenance.



Every machine we build shares the same design including standard central motorized die height adjustment utilizing a strong bull gear; large diameter toggle pins and guide bars to insure years of safe operation. Larger models (P120 and above) also offer a central hydraulic platform to change shot positions.



Our new dipped style gooseneck design prevents freezeups and reduces porosity by immersing the gooseneck below the metal surface. Our shot ends are further enhanced with the addition of piston type accumulators for greater efficiency.

Our goosenecks are cast alloy steel with hardened solid bottom sleeves for maximum life. Massive shot cylinder, lines and porting and a dedicated shot end manifold with separate accumulator and controls enable the machines to produce high quality flash free castings. The hydraulic manifold has controls for single, two speed and in larger machines (P90-HP and above) intensification as well as a complete range of control of shot velocity. Many of the adjustments can be made from the operator interface and the others on valving on the manifold. Total adjustability of pressure, velocity and timing as well as memory retention of settings are standard on every machine.



The hydraulic systems on our machines are perhaps the best feature we offer. A high-energy efficient motor and pump are located to maximize performance and minimize noise. We have recently engineered new high efficiency hydraulic circuits to use smaller pumps and still deliver higher speeds of operation while saving electricity. Separate manifolding for the clamping system, the shot system and on larger machines, the core pull and hydraulic ejection provide efficient delivery of the fluid to enable smooth, trouble free operation. By utilizing separate accumulators for developing closing speed and operating the shot system, we eliminate the need for larger, more energy consuming pumps and this allows lower operating pressure to provide stable performance with less maintenance required.

All machines utilize our proven system that provides a large hydraulic fluid reservoir with baffling to isolate the suction and return sides of our system. A large capacity heat exchanger maintains proper operating temperature for the hydraulic fluid.

All machines feature low pressure closing, automatic recycling, hydraulic multiple pulse ejection, hydraulic multiple sequence core pulls, motorized die height and two speed shot as standard. Speed and pressure can be individually adjusted on most of these features.



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Our shot systems are of particular note because we provide extremely high shot pressure and velocity comparable to the most sophisticated and expensive machines in the world. A unique sequence valve arrangement coupled with our proprietary circuit design provides our customers with the ability to tailor each set up to the requirements of the job they are running. Parameters can be saved on a log on the operator interface to be called up at any time.

Automation equipment and accessories for our machines were developed and are built in the same facility as our machines. Everything is designed to interface seamlessly with a minimum of setup required. We offer a dependable, proven vertical rotation extractor, a variety of reciprocating spray systems, a variety of conveyor systems utilizing both water quench and an air cooling tunnel and central hydraulic nozzle position changing. We can supply shot monitoring systems, chillers, vibratory finishing equipment, trim presses, weight sensing scales, special platen drilling and arrangements, special bases for custom installations and a variety of furnace and fuel options to suit any requirement.

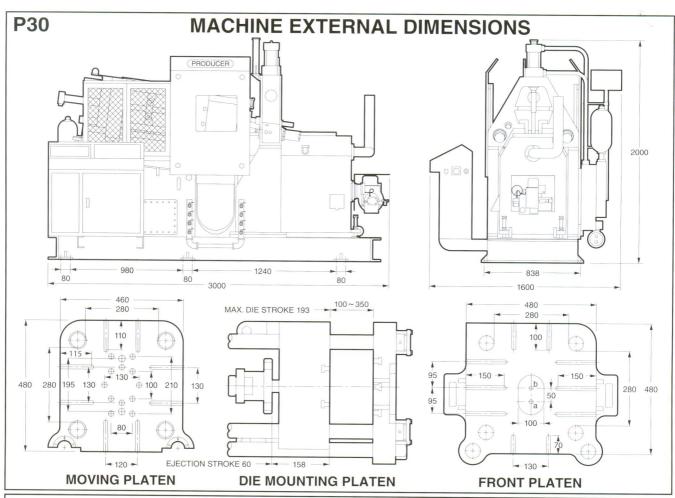
All of our machines come equipped with a full complement of safety features including hydraulic and electric interlocks and guarding. Safety redundancy is provided in all of our circuit designs and critical backups are included. International safety standards including CE and ANSI as well as prevailing local codes are met or exceeded. Safety signs with pictorial symbols are affixed to all areas of the machine.

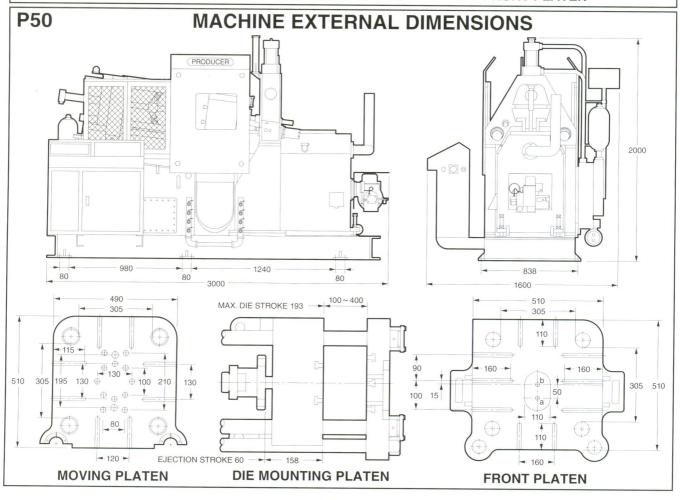


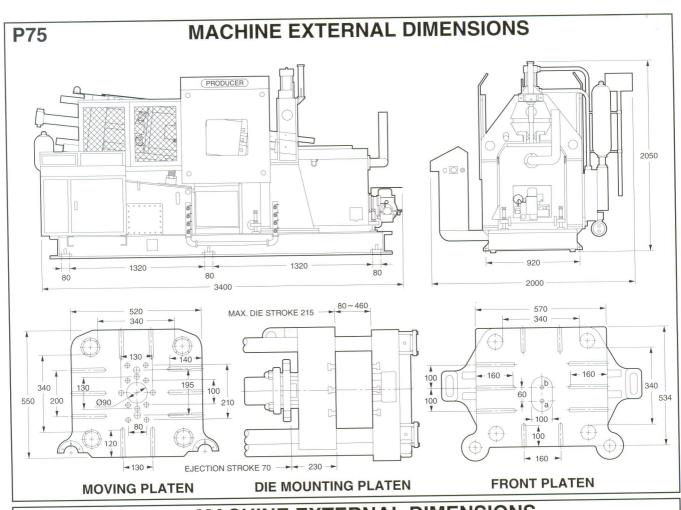
All models are supplied with a complete set of spare parts, tools, manuals, hand spray gun, die lifting boom (models up to P200), die clamps, a complete water manifold and drain system. Freight on all of our machines is included to the customer's assigned seaport. We provide startup and training with every machine and we stand behind our products with a strong warranty and complete stock of spare parts and factory trained technicians to assist our customer base.

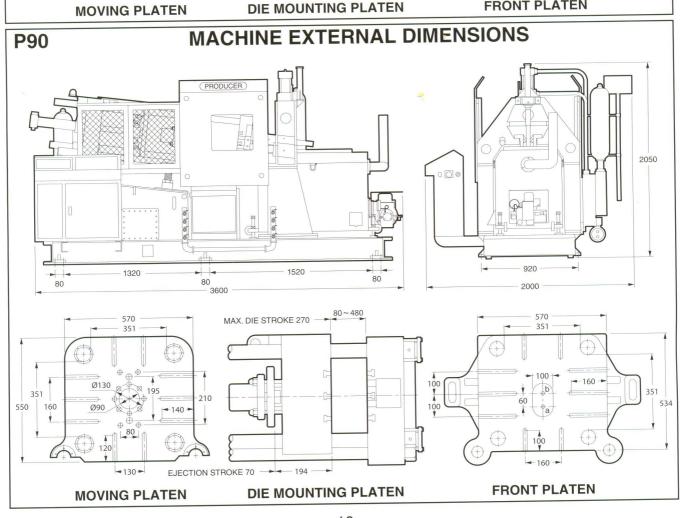
MODELS		P30	P50	P75	P90	P130	P160	P200	DH-P250	DH-P300	DH-P500
Clamping force (at 90 kg/cm ²)	ton	30 (at 70 kg/cm ²)	50	75 (at 105 kg/cm ²)	90	130 (at 110 kg/cm ²)	168 (at 115 kg/cm²)	200	280	330	515 (at 120 kg/cm ²)
Tie bar diameter	mm	50×6	55×4, 50×2	60×6	65×4, 60×2	80×6	85×4, 80×2	90×4, 80×2	100×6	112×4, 100×2	135×6
Die platen size (H×V)	mm	460 × 480	490 × 510	520 × 550	570 × 550	680 × 634	700 × 670	715 × 715	820 × 890	865 × 920	1070 × 1070
Between tie bars (H×V)	mm	280 × 280	305 × 305	340 × 340	351 × 351	400 × 400	445 × 415	465 × 465	520 × 520	540 × 540	695 × 695
Max. Die stroke	mm	193	193	215	270	293	362	362	400	400	500
Die height	mm	100 ~ 350	100 ~ 400	80 ~ 460	80 ~ 440	90 ~ 495	120 ~ 500	150 ~ 500	200 ~ 600	200 ~ 570	300 ~ 700
Nozzle touch force	ton	3	3	4.6	4.6	5.4	5.4	5.4	10	10	13.3
Nozzle break stroke	mm	150	150	160	160	180	180	250	250	250	300
Dia. Injection cylinder	mm	ø70	ø80	ø90	ø95	ø100	ø110	ø120	ø130	ø130	ø150
Max. Injection force	,	2.3	3	4.5	5	5.5	6.6	7.9	9.3	9.3	15.8
(at 70kg/cm ²)	ton	(at 60 kg/cm ²) (at 6	(at 60 kg/cm ²)								(at 90 kg/cm ²)
Max. Injection stroke	mm	120	120	125	125	190	190	200	200	200	250
Standard plunger tip dia.	mm	38 / 45	45	50	55	60	60 / 65	70	75	75 / 80	90 / 100
Total net injection amount (Zn)	gr	600 / 950	950	1160	1390	2700	2700 / 2950	3600	4500	4500 / 5200	5840 / 7800
Melting pot capacity (Zn)	kg	200	200	260	360	500	500	600	700	700	1000
Nozzle position (Center lower part)	mm	0, -50	0, -50	0, -60	0, -60	0, -80	0, -100	0, -100	0, -150	0, -150	0, -175
Max. Casting area	cm ²	118 / 166	212	262	341	533	574 / 675	780	1062	1251 / 1427	1661 / 2049
Casting pressure	kg/cm ²	203 / 145	189	229	211	195	234 / 199	205	211	211 / 185	248 / 201
Intensifier pressure	kg/cm ²	=	-	_	_	100	100	100	100	100	100
Ejection force	ton	2.5	2.5	3.8	3.8	6	7.5	8.5	13.8	13.8	24
Ejection stroke	mm	60	60	70	70	90	90	90	100	100	130
Casting cycles (Free)	n/h	1200	1200	1000	900	800	700	650	650	650	500
Working pressure	kg/cm ²	70	100	110	105	120	120	105	105	105	120
Accumulator (Bladder type)	ℓ/pcs	10×2	10×2	10×1,	20×2	20×1,	30×1,	30×1,	50×1,	50×1,	50×1, 30×1
*(Piston type)				20×1		*30×1	*20×2	*20×2	*30×2	*30×2	*40×2
Oil tank capacity	e	150	150	200	200	350	350	600	800	800	800
3 Phase induction motor	kw	3.7	5.5	7.5	11	11	15	18.5	30	30	37
220/110VAC transformer	amp	5	5	5	5	5	5	5	5	5	5
Machine weight	ton	3.7	4	4.8	5.2	8.7	9	10	14.5	15.5	26.8
Overall dimensions (L×W×H)	m	3×1.6×2	3×1.6×2	3.4×2×2.05	3.6×2×2.05	4.8×2.1×2.3	4.9×2.1×2.32	5×2.08×2.35	5.84×1.9×2.45	5.84×1.9×2.45	6.73×2.08×2.75
Injection System			2 stage in	jection			2 s	tage injection	and intensifier		×.

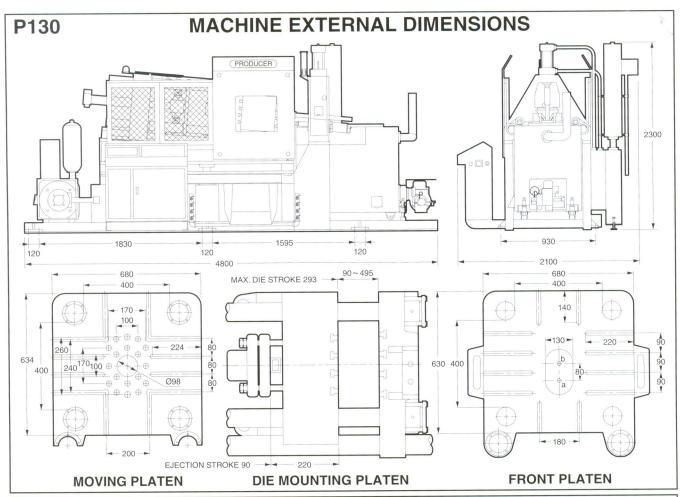
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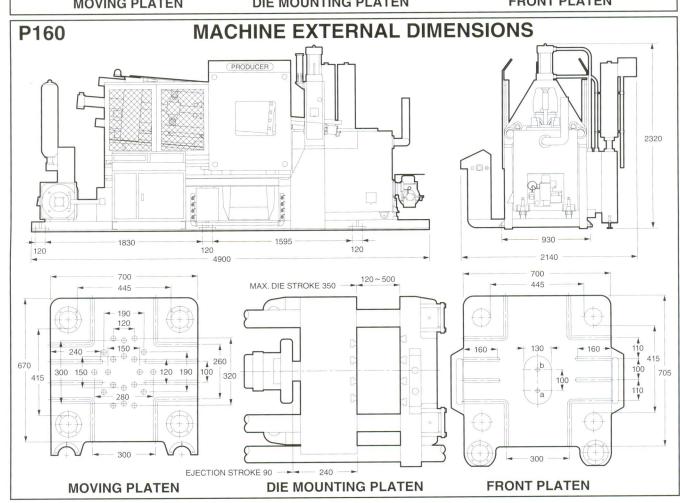


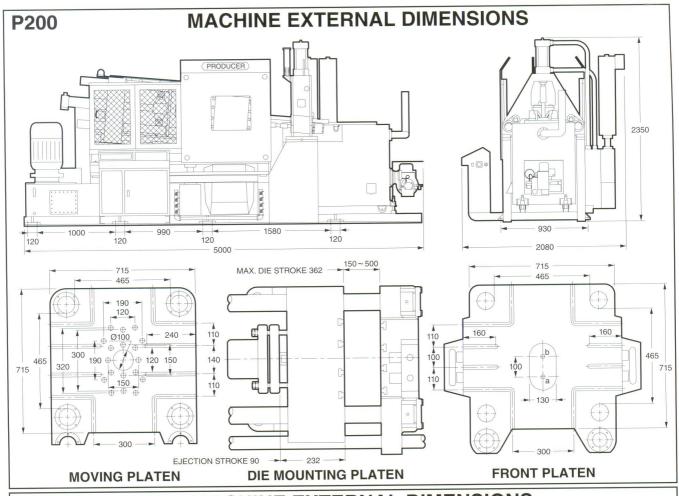


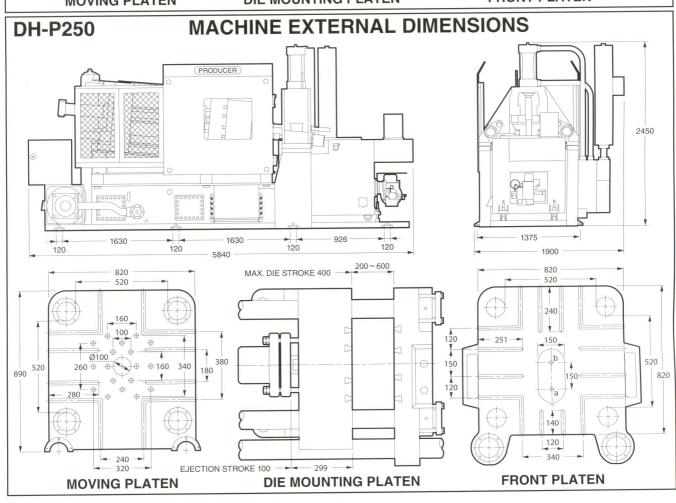


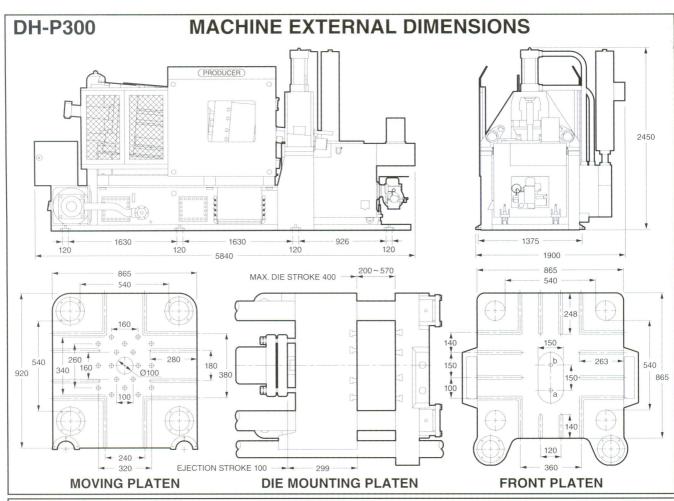


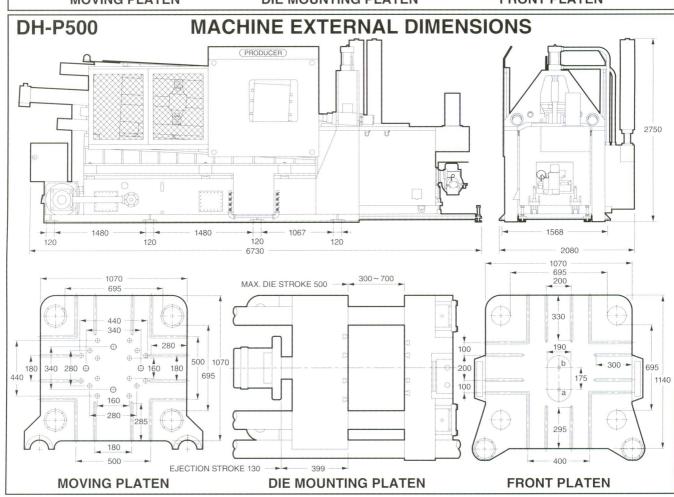












AUTOMATION EQUIPMENT FOR DIE CASTING MACHINERY



Air cooling conveyor utilizing two fans for use with extractor



Air cooling conveyor utilizing fan for use with casting chute



Dry steel belt conveyor

In an effort to constantly improve our machines, we have recently introduced optional enhancements to our injection system including servo controller with proportional valve for applications where high casting integrity is desired. This system functions with the highest quality hydraulic components recognized all over the world as superior in both performance and design. Our unique designs can be retrofitted to existing machines in the field to provide the latest technology.

Coupled with the well established reputation of Producer for intelligently thought out and engineered solutions to die casting problems, we also supply a line of trim presses and vibratory finishing machines.

Model STR1

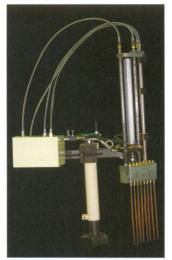
Model STR2

Model STR3

Vertical rotation extractor model E30









Reciprocating spray system

Machines can be fitted with furnaces fueled by gas, oil or electric depending on the customer's needs. Controls can be provided in any language the customer needs to insure complete understanding of the operation and maintenance of the machine by local technicians.

Our equipment meets or exceeds the safety and operation standards of all countries our equipment is sold in, and we constantly monitor new developments to insure compliance with upgrades as they are introduced.

VERTICAL ROTATION EXTRACTOR

MODELS	E30 integrated with two claw	E30 integrated with three claw	E35 integrated with movable base	
Applicable die casting machine	P90 and below	P120 above to DH-P300	DH-P500	
Motor specification	2Hp	2Hp	2Hp	
Air pressure required	7 kg/cm ²	7 kg/cm ²	7 kg/cm ²	
Max. Stroke	1520 mm	1620 mm	1920 mm	
Side movement stroke	65 ~ 100 mm	65 ~ 100 mm	65 ~ 100 mm	
Grip clamping force	48 kgs	60 kgs	60 kgs	
Arm swivel	90 Degrees	90 Degrees	90 Degrees	
Minimum cycle time	6 ~ 8 Seconds	6 ~ 8 Seconds	6 ~ 8 Seconds	
Air consumption	5.6L per cycle	5.6L per cycle	10L per cycle	

RECIPROCATING SPRAY SYSTEM

RECIPROCATING SPRAY SYSTEM						
MODELS	STR1	STR2	STR3			
Applicable die casting machine	P50 above to P200	P120 above to DH-P500	P20 above to DH-P500			
Die height range	260 mm	300 mm	260 mm			
Air pressure required	7 kg/cm ²	7 kg/cm ²	7 kg/cm ²			
Air consumption	12.5L per cycle	12.5L per cycle	18L per cycle			
Spray configuration	8 Air blow pipes-4 or 6 Spray nozzles	10 Air blow pipes-6, 8 or 12 Spray nozzles	8 Air blow pipes or 16 Air blow pipes (DH-P250 and above)			
Release agent pressure	0.5 kg/cm ²	0.5 kg/cm ²	2 kg/cm ²			
Compressed air connection	1/2"	1/2"	1/2"			
Release agent connection	3/8"	3/8"	3/8"			
Total stroke	450 ~ 650 mm	550 ~ 650 mm	400 ~ 650 mm			
Reciprocation time	1.4 Seconds	1.4 Seconds	1.4 Seconds			
Adjustable bracket stroke	190 mm	190 mm	190 mm			
Total rotation adjustment	Below 300 degrees	Below 300 degrees	Below 300 degrees			
Pressure tank capacity	60L	60L	60L			
Remarks: Adjustment of bracket st	roke and total rotation are	manual				





Specifications for trim presses:

MODEL No.		TP7.5	TP20
Max. trim force	ton	7.5	20
Max. pull out force	ton	1.8	4.2
Max. stroke	mm	250	650
Max. daylight (ram up)	mm	350	725
Daylight (shut height)	mm	100	75
Tie bar diameter	mm	Ø60 x 4	Ø75 x 4
Distance between tie bars	mm	400 x 400	585 x 280
Die space (moving platen)	mm	580 x 580	915 x 508
Die space (base platen)	mm	580 x 580	915 x 610
Hole size in base platen	mm	120	305 x 305
Height to base platen	mm	900	900
Floor space	mm	1300 x 930	1600 x 1350
T-slots in platen	n/a	1/2 ~ 12 UNC	5/8 ~ 11 UNC
Electric motor	hp	3	10
Rapid closing speed	mpm	5.12	11.9
Pressing speed	mpm	0.9	2
Return speed	mpm	4	9
Power supply	n/a	220 ~ 480 VAC	220 ~ 480 VAC
Air (80 psig) pipe size	n/a	3/8" NPT	3/8" NPT
Oil tank capacity	e	100	200
Approx. shipping weight	ton	1.3	2.4
Overall dimensions (LxWxH)	m	1.55x0.93x1.86	1.6x1.16x3.1

We are proud to introduce a new addition to our growing line of die casting equipment products. We have recently developed a line of hydraulic, four post trimming presses in four popular sizes. These presses are very rugged and are designed to accommodate a large variety of trim dies. Features include PLC controls with touch screen operator interface utilizing linear stroke adjustment and diagnostics. They also come equipped with a light curtain, safety ratchet, dual hydraulic pull backs and non contact push buttons as well as interlocked side and rear guarding. An economical control package utilizing power relays complete with sensor interlocked guarding is also available.