

A NEW LOOK AND NEW VITALITY

ABOUT TBC

Within accumulation of experience and technology for 30 years, TBC moved to HoFa Industrial Park in order to have more space to manufacture and process machines. Until now, TBC service spots are based in India, Vietnam, Thailand, Saudi Arabia, and others. In the future, we are looking forward to developing machine models of more than 1,000 tons and more intelligent CH series model to satisfy customers' demand. We are confident to a brand new start with superior quality assurance.





EXHIBITION

SERVICE SPOTS



COMPANY PROFILE

THIS IS TBC-DIECAST. INNOVATION WITH SIMPLICITY

Professional Concept and Highly Experienced

Technology Base Corporation was established in 1987, specializing in production and management of peripheral equipment in the die casting industry. TBC focused on the refurbishment and overhauling of die casting equipment. However in 1993, TBC launched its own die casting machine. TBC's first generation machine was a cold chamber die cast machine. TBC's own brand was born. We are constantly challenging ourselves to make more from less without compromising on quality. Customer care is always our top priority.



Renewing and Improving

Having a technical co-operation with the Metal Industries Research and Development Center, TBC was the first die casting machine manufacturer in Taiwan with ISO9001 accredi-

We are continuously looking for new and better ways forward in research, innovation and personnel training. Finding solutions to seemingly impossible challenges is a source of inspiration to move on to the next challenge.



Valuing Every Individual Diverse Talents

TBC is a team, and as such, we value every individual diverse talents. Working together, with the same goals and direction has become the base for TBC to flourish and improve the quality of our products and service. We dare to push the envelope, to constantly improve ourselves.



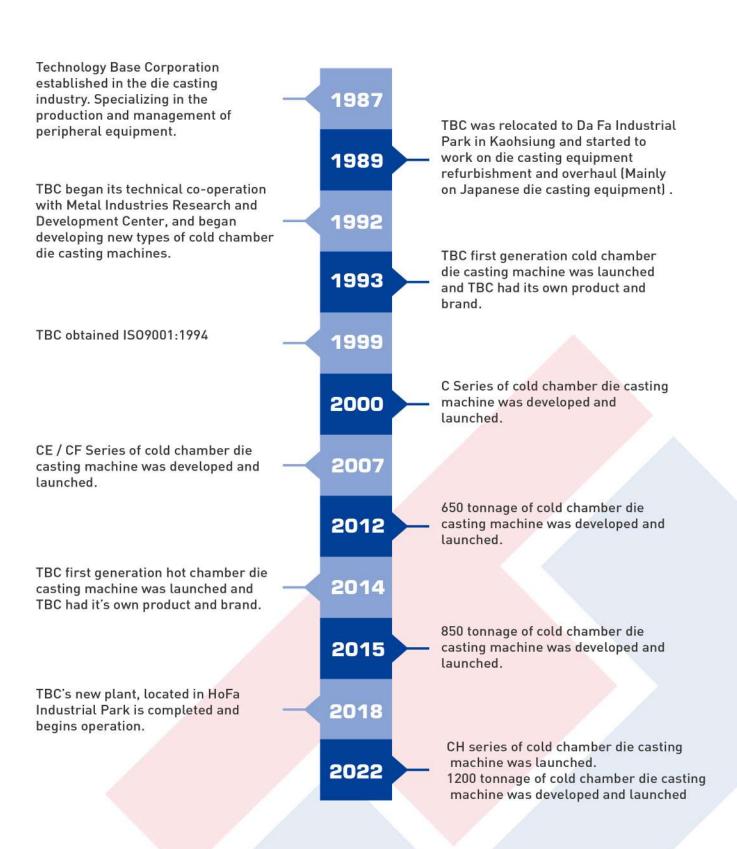
An International Outlook and a Global Layout

TBC die casting machines upholds the ideals of stable performance, fine quality and reasonable pricing, which is of course deeply rooted in the minds of customers in the die casting industry field, made known to us after having many years of experience working alongside our customers. We have successfully entered the marketplace in China, India, Vietnam and others. We are actively extending our growth further into the international market to become a global player.



OUR STORY

CHRONICLE OF EVENTS



SERVICE ITEMS

DIE CASTING EQUIPMENT

Cold Chamber Die Casting Machine 150-900 ton



1.CH/CF/CE series. 2.150-900 ton

Robot Integration



- 1. Spraying Robot
- 2. Extracting Robot
- 3. Extracting and Spraying (2 in 1) Robot

Hot Chamber Die Casting Machine 75-250 ton



- 1. 75,130,190,250 ton
- 2. Auto Hydraulic Injection Position Adjustment.
- 3. Alternative to Gas furnace, Diesel furnace and Electric furnace.

Auxiliaries



- 1. Ladler, Sprayer, Extractor
- 2. Auto Charging System
- 3. Vacuum System
- 4. Release Agent Dilutor

TOTAL SOLUTION FOR COLD CHAMBER DIE CASTING MACHINE



Extracting Robot

- Able to be integrated with casting inserts.
- If combined with stamping press/conveyor, improving production efficiency.
- Able to be integrated with Defective Casting Detector, automatically picking out bad castings.



Spraying Robot

- Specialized independent nozzle control for air and release agent.
- Able to adapt to hard to reach angles.
- Spraying parameter stored and is not required copper tubes.





Release Agent Dilutor

PRODUCTION OPTIMIZATION HELP YOUR DIE CAST **TURNKEY SOLUTION**



Conveyor



Stamping Press





Auto Charging System (Aluminum/Zinc)



Melting Furnace for Die Casting

- High melting efficiency and excellent heat preservation.
- Integrated with Furnace Temperature Display, giving alarm if temperature exceeding range of setting.

COLD CHAMBER DIE CASTING MACHINE / 280-900 ton



Performance **METER-IN** INJECTION

High-end INTELLIGENT MODEL

High Speed Injection SYSTEM

m/sec.

Acceleration

High-end Auxiliaries: CH series is equipped with toggle-arm ladler, servo sprayer, and servo extractor, highly improving production efficiency and quality.



Dual Hydraulic System and Independent Intensification Accumulator: Owing to the separate ACC for intensification part, the pressure is not influenced by high speed. Moreover, operator can set up IP pressure independently. Suitable for 500 ton machine and above.



Meta-in Injection System: New hydraulic circuit design is capable to achieve a 80G acceleration and high speed to 8m/s. With German proportion solenoid valve, precisely controlling multi-phase for low speed and reduce casting porosity. higher stability for pressure resistant products and laminar flow die casting.

Advanced Data Management: Standard for die locking force display, abandoned cast setting, detection of defective, 500 sets of parameter storage.



Energy Saving System: With German Eckerle pump and the whole new controlling system, extend the lifespan and durability.



Remote Data Collection System: (Option):Remote monitoring and collection of production data. Simple through mobile phone or laptop.



COLD CHAMBER DIE CASTING MACHINE / 150-900 ton



m/sec.

Acceleration

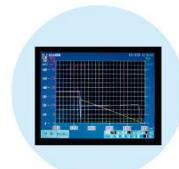
ADVANCED MODEL FOR HIGH PRODUCTIVITY



Assist Production System: Standard for abandoned cast setting, display of injection valve and pressure, timer setting of core position, and shot condition calculation.



Data Storage: 3000 sets of injection data and 300 sets of casting parameters all stored and managed via USB.



Smart QC System: Equipped with injection data display, injection diagram, defective detection, oil temperature sensor, oil level sensor (optional), die locking force display (optional).



Optional for Servo Sprayer:

Adjustable for spraying stroke,

providing better quality and

atomization effect.

150CF -- 14 seconds cycle time



Dual ACC and Circuit Design(for 250 ton and above): Efficiently reducing the pressure drop, and providing superior reaction of refilling pressure. More stable in injection.



Multi-speed Injection System: Having 5 low speed setting. Eliminating air entrainment and molten metal flash. Effectively enhancing quality and able to lower porosity.



Back Pressure Relief Device: With unique hydraulic circuit design, acceleration from low to high speed taking only 0.012 seconds.

COLD CHAMBER DIE CASTING MACHINE / 150-730 ton



BETTER SOLUTION FOR COST REDUCTION



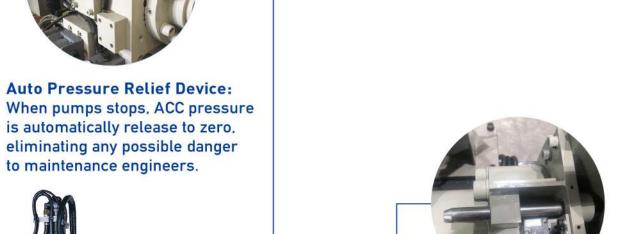
Auto Lubrication System: Quantitative apply lubrication, preventing toggle pins from locking.



Adjustable Sliding Shoes: Easy to use and enhance the efficiency of platen adjustment.



Omron HMI: Intuitive and ergonomics UI design for controller. 100 sets of parameter storage.



Non-contact Sensor: Simple and convenient settings for injection schedule. Having a unique cylinder injection circuit design. Speed can reach 6m/sec.



Injection Valve Setting: Injection valve directly controlled motor and encoder, setting up by HMI

MACHINE SPECIFICATIONS

ITEM		150	180		280	42	20		580		730		900
IIEM		CE,	CF	CE.	/ CF / CH	CE / C	F / CH	CE	/CF/CH	CE /	CF / CH		CF / CH
Die Locking Force	KN	1500	1800		2800	42	00		5800		7300		9000
Die Platen Dimensions (HxW)	mm	730 x 730	790 x 790	85	50 x 904	1010 x	1010	10	90 x 1180	123	0 x 1230	1	400 x 1400
Space between Tie Bars	mm	460 x 460	482 x 482	58	34 x 584	652 >	652	7	50 x 750	85	2 x 852		931 x 931
Tie Bar Diameter	mm	9	0		110	12	5		150		160		190
Die Stroke	mm	35	50		380	42	0		560		660		760
Die Thickness	mm	250 -	- 500	25	50 ~ 600	300 -	700	3	50 ~ 850	350	0 ~ 900		400 ~ 950
Soleniod Valve for Core	Piece	3/8" x 1	3/8" x 1	3/8" x 1	3/8" x 2	3/8" x 1	3/8" x 2	3.9	1/2" x 2	1,	2" x 3		1/2" x 3
Hydraulic Outlet	Set	1/2" x 2	1/2" x 2	1/2" x 2	1/2" x 3	1/2" x 2	1/2" x 3	;	3/4" x 3	3,	4" x 5		3/4" x 5
Injection Force	KN	18	32		265	35	4		506		550		653
Plunger Stroke	mm	33	30		370	42	5		580		670		750
Plunger-Tip Projection Distance	mm	1!	50		150	16	5		250		300		350
Injection Port Position	mm	-1	00		-125	-1	50		-175		-175	-:	250 or -275
Dry Shot Speed	m/s	6	7	6	7 8	6 '	7 8	6	7 8	6	7 8	7	8
Diunger tin Diameter	mm	Min. St	a. Max.	Min.	Sta. Max.	Min. St	a. Max.	Min.	Sta. Max.	Min.	Sta. Max.	Min.	Sta. Max.
Plunger-tip-Diameter	mm	45 5	0 60	50	60 70	60 7	0 80	70	80 90	70	80 90	80	90 100
Maximum Casting Pressure	Мра	110.2 88	.9 61.7	132.8	92.3 67.7	109.9 80	.6 61.7	117.7	90 71.1	140.5	07.7 85.1	130	102.8 83.1
Casting Area	cm²	133 16 207 25		184 287	265 361 413 563	312 42 485 66	25 555 51 864	416 624	544 688 816 1033		604 764 760 962	653 904	826 1022 1144 1414
Actual Shot Weight	Kg	0.92 1.	16 1.67	1.40	2.02 2.75	2.35 3.	20 4.18	4.35	5.68 7.19	5	6.6 8.3	7.3	9.2 11.4
Ejection Force	KN	10	0.9		123.5	190	0.1		259.7		300		340
Ejection Stroke	mm	8	0		80	10	0		110		125		125
Hydraulic Motor	kw	1	5		18.5	22	.5		37		37		45
Amount of Hydraulic Fluid	Ĺ.	30	50		370	48	0		700		800		860
Amount of Cooling Water for Oil Cooling	L/min	2	5		25	2	5		80		80		150 ~ 180
Amount of Cooling Water for Die Casting Cooling	L/min	25 -	- 50	2	25 ~ 50	25 -	50		50 ~ 90	50) ~ 90		150
Machine Weight	ton	į	j.		9.4	12	.8		23		30		50
Machine Size	mm	4820 x 15	20 x 2585	5613 x	1650 x 2616	6275 x 18	35 x 2975	7590 x	(2065 x 3345	8046 x 3	2335 x 3413	9990	x 2450 x 3556

TBC reserves the right for adjustment of data.

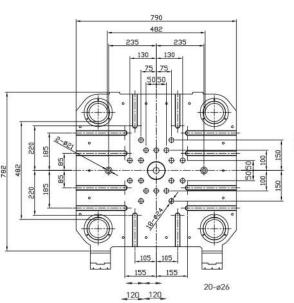
Speci actions & contents are subject to change without further notice.

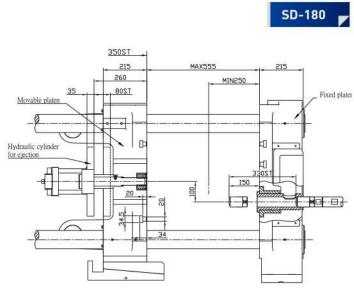
All photos and contents are copyrighted by TBC.

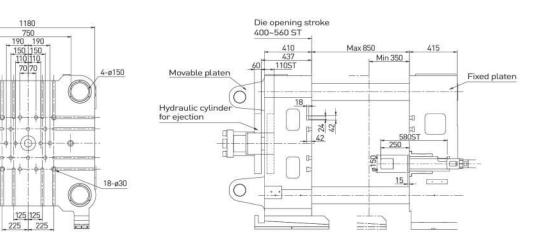
SD-580

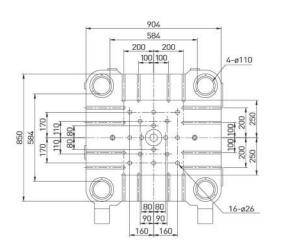
SD-900

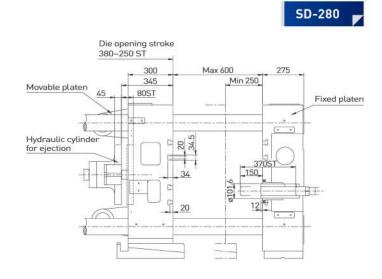
PLATEN LAYOUT

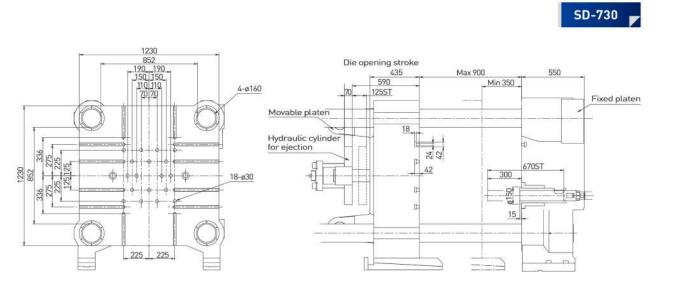


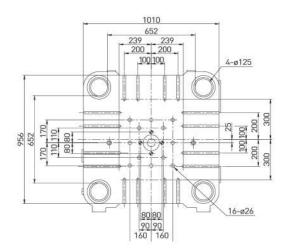


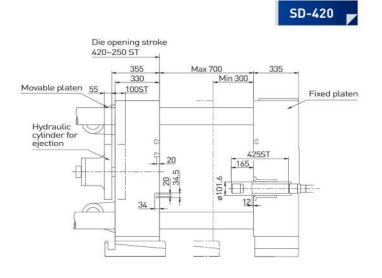


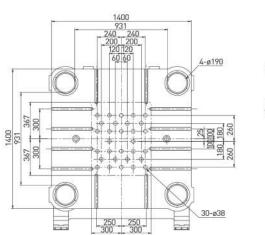


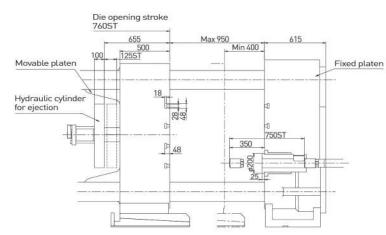




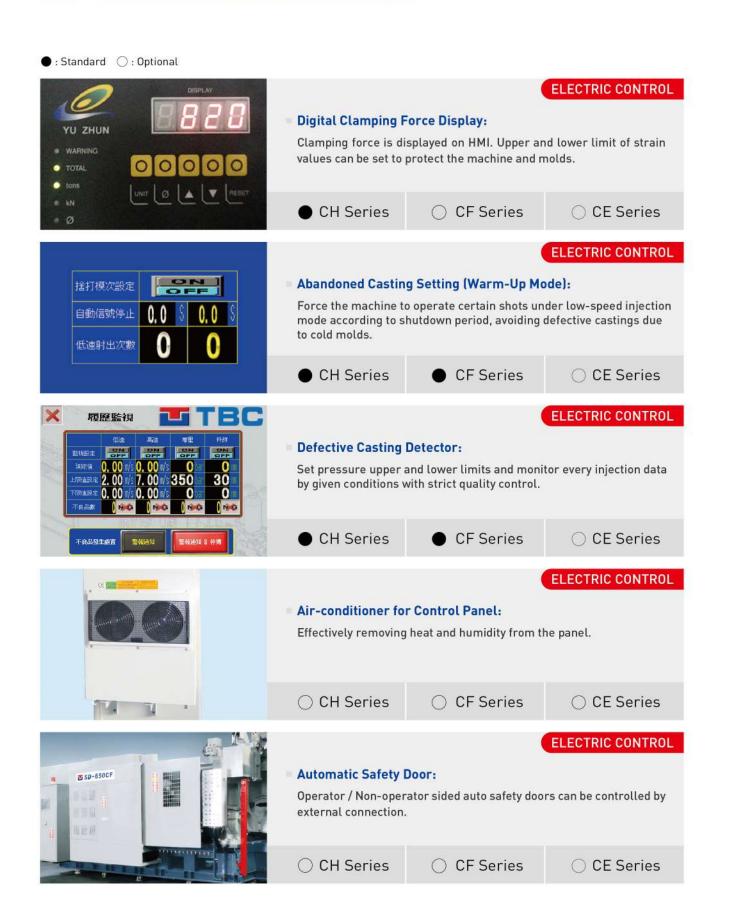


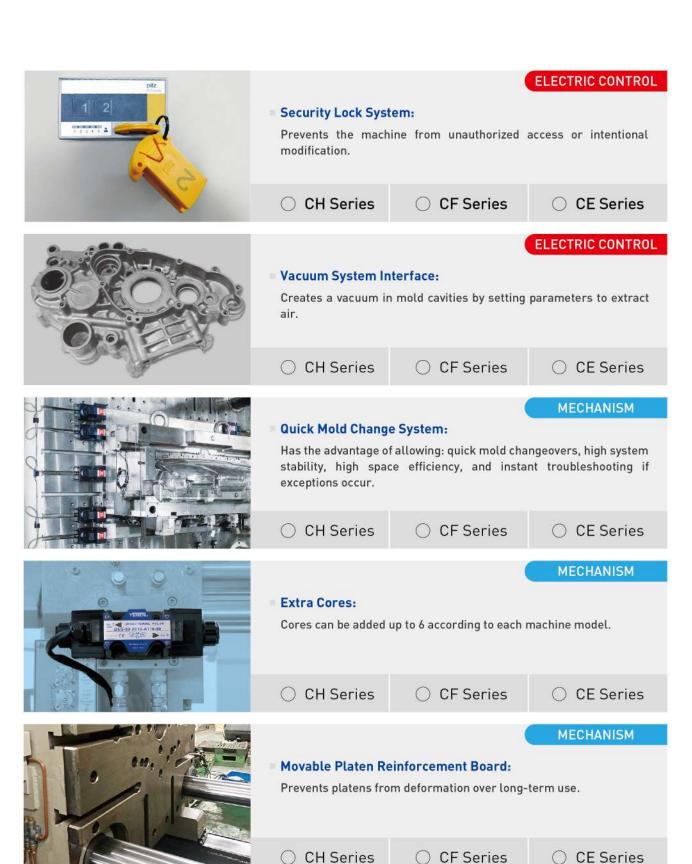




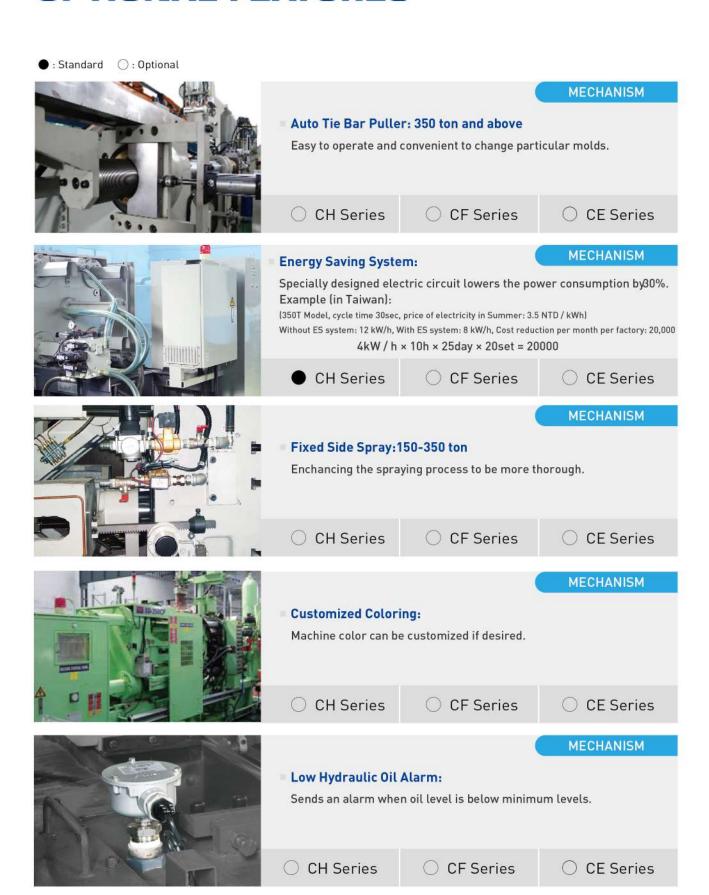


OPTIONAL FEATURES





OPTIONAL FEATURES





Features

- 1.Rate of dilution settings is easy to set, the adjustment range is large, and the concentration is stable.
- 2.Stainless-steel-made mixing buckets and diaphragm pump provide large flow with stable pressure.
- 3.Level limit detection designed for the release agent bucket and the mixed diluent bucket.
- 4. Easy maintenance.

SPECIFICATIONS		SF-25B	SF-65A	
Applied to Auto Sprayer	-	SS-15 / 35 (4 sets) SS-65 / 80 (2 sets)	SS-15 (10 sets) SS-35 (8 sets) SS-65 / 80 (6 sets)	
Dilution Rate	:=	50 ~ 416	60 ~ 500	
Tank Volume	L	38	200	
Maximum Flow Rate of Pump	L / min	159	159 x 2	
Air Consumption	L/min	200	200 x 2	
Dimension	mm	850 x 600 x 1050	1250 x 900 x 1350	
Net Weight	Kg	83	200	
Air Pressure: 5Kg / cm² Water Input Pressure: 2-3Kg / cm² Output Pressure: 2-5Kgf / cm² Water Temperature: 5°C-40°C				

Auto Sprayer

GENERAL SPECIFICATIONS - Power Voltage: AC220 / 380V, Operate Voltage: DC24V

With auxiliaries only, control cabinet is necessary. It can provide an abnormal message alert.

AUXILIARY



A Type

FEATURES

- Accurate molten amount supply.
- Inverter driven arms providing smooth and steady movement.
- Easy setting of time and speed.
- Special design of sleeve for long duration under conditions of high temperature and low oil supply.
- Type C is for TBC machines only. Movement is more stable and quicker. More durable.

SPECIFICATIONS		SL-15A/C	SL-35A / C	SL-65A / C	SL-80A/C
Applied D.C.M.	ton	100 ~ 200	250 ~ 420	500 ~ 730	800 ~ 900
Ladle Volume	Kg	0.2 ~2.0	0.4 - 4.5	4.0 ~6.0	4.0 ~ 8.0
Ladle Size	Kg	0.4 / 0.8 / 1.6	1.6 / 2.5 / 3.5	4.0 / 6.0	6.0 / 8.0
Cycle Time	Sec.	12	16	16	18
Min. Crucible Dia.	mm	450	500	650	700
Arm Motor	KW	0.4	0.4	1.5	1.5
Ladle Motor	KW	0.4	0.4	0.75	0.75
Ladle Depth	mm	350	480	550	550
Machine Weight	Kg	229	249	405	398



Auto Extractor





- Firm grip of castings without vibrating or slipping.
- Water-proof, dust-proof and splash-proof structure design.
- Detecting the number of castings extracted, function available.
- Servo sprayer can be optional, providing more efficient and flexible operation.

SPECIFICATIONS	SE-15C	SE-35C	SE-65C	SE-80C	
Applied D.C.M.	ton	100 ~ 200	250 ~ 420	500 ~ 730	800 ~ 900
Extract Stroke	mm	960	1199	1890	2167
Drag Stroke	mm	150	200	300	300
Adjustment For Die Thickness	mm	±100	±100	±100	±100
Clamping Dia.	mm	40 ~ 70	50 ~ 80	70 ~ 95	80 - 120
Machine Weight	Kg	233	285	460	530



FEATURES

- Unique circuit design for excellent spray atomization.
- Timer and flow valve controlled spray volume which is easy for optimization.
- High flexibility of tubes for directional adjustment. Suitable for any kind of
- Easy tube base substitution and tube numbers adding / removing.
- Equipped with independent pneumatic circuit to dry out the residual release
- Auto-locked upper position limit under condition of pneumatic source

SPECIFICATIONS		SS-15 / 15BM	SS-35 / 35BM	SS-65 / 65BM	SS-80 / 80BM	
Applied D.C.M.	ton	100 - 200	250 - 420	500 ~ 730	800 ~ 900	
Up-down Stroke	mm	600 / 650	700 / 800	900	1000	
Adjustment For Die Thckness	mm	180	180	280	300	
No. of Spray Tubes		26	40~ 50	63	75	
No. of Air Tubes		8	8	12	12	
Air Comsuption	LPM	1400	1500	2500	2500	
Lubricant Pressure	Kg/cm²	3 ~ 5	3 - 5	3 ~ 5	3 ~ 5	
Machine Weight	Kg	190	200	267	253	

Servo Sprayer

FEATURES

- Contains all the advantages of the normal sprayer.
- Uses servo motor with high durability bearings driving the sprayer allowing fast up/down movements and saving energy.
- Highly efficient spraying with the ability for fine vertical movements.
- Able to reduce usage of release agent by 50~70%.
- Able to shorten the cycle time by 1~5 secs.
- Able to enhance product quality by lowering porosity.
- Optional for Standard Type / Link Type servo sprayer.



www.tbc-diecast.com

AUXILIARY



Auxiliary

Spraying Robot

- Specialized independent nozzle control for air and release agent. Adjustable for quantity of spraying.
- Able to adapt to hard to reach angles.
- Dust and water resistant.
- Spraying parameter stored and is not required copper tubes.
- Able to extend storage space by USB.
- Reduce labor cost.





- Able to be integrated with casting inserts.
- If combined with stamping press/conveyor, improving production efficiency.
- Able to be integrated with Defective Casting Detector, automatically picking out bad castings.



Extracting and Spraying (2 in 1) Robot

- Specifically applicable to hot chamber die casting machine.
- Able to adapt to hard to reach angles.
- Fluent movement of spraying and extracting, saving labor cost.

OTHERS DIE CASTING AUXILIARIES



Auxiliary

Vacuum System

- Equipped with HMI, user-friendly, easy to operate.
- Improve density of the casting, decrease surface flow marks and porosity, and increase qualified rate of casting
- Extend the lifespan of die

MODEL	
Applied to D.C.M	800 ton below
Nominal Displacement of Vacuum Pump	63m3/Hr(50Hz, 76m3/Hr(60Hz)
Nominal Motor Rating of Vacuum Pump(KW)	1.8KW(50Hz),2.2KW(60Hz)
Volume of Tank (L)	150L
Dimension(mm)	1150mm(L)x600mm(W)x1150mm(H)

Auxiliary

Auto Charging System

- Simplifying the process of manual feeding.
- Increasing efficiency of production.
- Able to adjust speed, time, and quantity of distribution.
- Standard for warning light, buzzer, and safety door.

SPA-80		 Increasing eff Able to adjust distribution. Standard for v door.
111111111111111111111111111111111111111	IIII	MODEL
TI		Molten Metal
		Max. Speed
		Ladle Speed
		Ladle Volume
		No.ofmachine

MODEL	SPA-80	SP-50C
Molten Metal	Aluminum	Zink
Max. Speed	45 m/min	45 m/min
Ladle Speed	95 mm/sec	95 mm/sec
Ladle Volume	60KG	50KG
No.ofmachine	12sets	12sets

TEC www.tbc-diecast.com

TOTAL SOLUTION FOR HOT CHAMBER DIE CASTING MACHINE



Extracting and Spraying (2 in 1) Robot

Fluent movement of spraying and extracting, saving labor cost.



Auto Sprayer / Extractor



Customized Coloring



Conveyor



Auto Charging System

Video: TH-190 + Robot

HOT CHAMBER DIE CASTING MACHINE / 75 / 130 / 190 / 250 ton



HIGH QUALITY MACHINES TO SATISFY YOUR DIE CASTING NEEDS

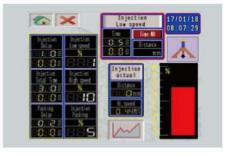
Rigid & Durable, Steady Mechanism Design. User Friendly Interface, Easy to operate.

INJECTION SYSTEM



- Controlled by Proportional solenoid valve
- Excellent injection intensity.
- Precise control to enhance component quality.

INJECTION SYSTEM



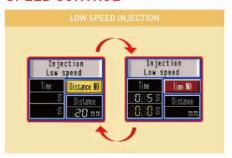
- Three-phase injection mechanism
- Provides low, high speeds and pressure retention.
- Enhanced air-tightness during pressure retention period.

PLATEN SYSTEM



- Proportional Solenoid Valve
- Smooth die close / open.
- Short die close / open cycle.

TWO MODES IN LOW SPEED CONTROL



- Freely switch between time / distance in low speed injection modes.
- Effectively control the pressure and speed of injection with measured values provided.

OVER 30 YEARS OF EXPERIENCE WITH DIE-CASTING MACHINES

We have over 30 years of R&D experience in the cold-chamber die-casting machine industry. Enabling us to produce easy-to-use, robust and stable hot-chamber die-casting machines.





Abnormal Transition (III) 0 0 0 **№ 1 2**

MAINTENANCE & MANAGEMENT

- Data Management
- Up to 250 sets of casting conditions able to be stored.
- Enhance management efficiency.
- Error message display
- Abnormal message alerts for quick troubleshooting.





COMPLETE INJECTION DATA DISPLAY

- Three curves displayed in the figure: Pressure, Distance and
- Injection data will be displayed on the screen for further usage.



PLATEN LAYOUT

TH-75

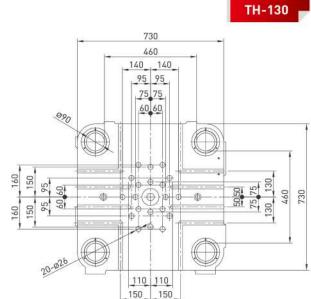
TH-190

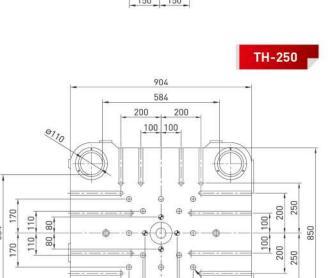
MACHINE SPECIFICATIONS

TBC Hot chamber die casting machine video link.

	329 65_65,	2-ø18 12-ø21
97.5 97.5 50.50	4040	65 65 130 130 329 550
	68 68 100 100 165 165	•

404.5 120 120 75.75 60.60





80 80 90 90 160 160



110 110 120 120 130 130







16-ø26

MODEL	UNIT	TH-75	TH-130	TH-190	TH-250
PLATEN PART					
Die Clamping Force	ton	75	130	190	250
Tie Bar Diameter	mm	60	75	90	110
Die Platen Dimensions (HxV)	mm	550 x 550	640 x 640	730 x 730	850 x 904
Space between Tie bars	mm	329 x 329	400 x 400	460 x 460	584 x 584
Die Stroke	mm	210	310	350	380
Die Thickness	mm	120~400	140~480	150~500	200~600
Nozzle Matching Force	ton	5.1	6.0	7.5	13.0
Nozzle Stroke	mm	200	200	200	250
INJECTION PART					
Injection Cylinder Diameter	mm	80	100	120	120
Maximum Injection Force	ton	5	7.85	10	12.5
Maximum Injection Stroke	mm	125	190	190	200
Injector Rod Diameter (Standard)	mm	50	60	65	75
Actual Shot Weight (Zinc)	g	1200	2500	3000	4500
Furnace Capacity (Zinc)	kg	260	500	500	700
Injection Position	mm	0,60	0,80	0,-100	0,-150
Maximum Casting Area	cm ²	253	494	615	929
Casting pressure	kg/cm ²	256	200	238	269
EJECTION PART					
Ejection Force	ton	5	6	7.5	10.5
Ejection Stroke	mm	70	70	80	100
HYDRAULIC PART					
Operating Pressure	kg/cm ²	110	110	110	125
Accumulator (HYDAC) N2 (Injection)	l/ea	20 x 1	20 x 2	20 x 2	32 x 2
Accumulator (HYDAC) N2 (Die close)	l/ea	10 x 1	20 x 1	32 x 1	50 x 2
Oil Tank Capacity	ı	200	400	600	800
ELECTRICAL PART					
Electrical Motor	kw	11.0	15.0	18.5	30.0
MACHINE SIZE					
Machine Weight	ton	5	7.5	10.5	14.7
Machine Size	m	4.2x2.0x1.8	4.3x2.2x2.3	4.8x2.1x2.5	5.5x2.2x2.

Option	
Auto Safety Door	Auto Hydraulic Injection Position Adjustment.
Electric Heater for Shot Sleeve	Extracting and Spraying (2 in 1) Robot
Nozzle –Type Sprayer	Electric Melting Furnace
Auto Extractor	Conveir

TBC reserves the right for adjustment of data. Specifications & contents are subject to change without further notice. All photos and contents are copyrighted by TBC.



TECHNOLOGY BASE CORPORATION

No.21, Heye 1st Road., Ho Fa Industrial Park, Daliao District, Kaohsiung City 83164, Taiwan T. +886-7-7873627~8 F. +886-7-7872262 info@tbc-diecast.com

T.B.C MACHINERY (DONGGUAN) CO., LTD

Building 1 ,No. 7,Pulong West First Road,Tangxia,Dongguan ,Guandong, China T. +86-769-82129197 F. +86-769-82129173 techbase@163.com



OVERSEA SERVICE SPOT

China : Fujian, Xiamen, Jiangsu, Kunshan, Ningbo

India: Delhi, Pune, Coimbatore, Chennai

Indonesia : Jakarta, Surabaya Vietnam : Ho Chi Minh City, Hanoi

South Korea: Seoul Malaysia: Kuala Lumpur Thailand: Bangkok Pakistan: Karachi

TBC reserves the authorization for modification. Specifications & contents are subject to change without further notice. Copyright of all photos, contents are belong to TBC.						