

*tdc*  
**TECHNOCRATS**

Die Casting (India) Pvt. Ltd.

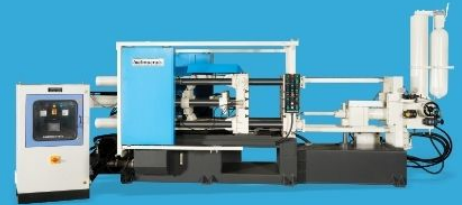
Manufacturers of Pressure Die Casting Machines,  
Gravity Die Casting Machines

[www.technocratsmachinery.com](http://www.technocratsmachinery.com)



## *tdc* OUR PRODUCTS

**HORIZONTAL COLD CHAMBER  
PRESSURE DIE CASTING  
MACHINES**



**HORIZONTAL HOT CHAMBER  
PRESSURE DIE CASTING MACHINES**



**VERTICAL SQUEEZE DIE  
CASTING MACHINES**



**ALLOY WHEEL GRAVITY DIE  
CASTING MACHINES**

## PRESTIGIOUS CLIENTS

**SANDHAR**  
Sandhar Technologies Limited

**IAE**  
INDRANI AUTOMOTIVE & ENGG.

**MAKINO**

**SUN RAYS**  
ENGINEERS PRIVATE LIMITED  
An ISO 9001:2008 Certified Co.

**SWISS**  
No relations  
are too  
better

**alcozin**  
www.alcozin.com

**ALMONARO**

**Newcast Die  
Casting**

**IE**

**SCR**  
Auto Components Ltd.

**RAMDEV**  
LIGHTING LLP



Kallani Autocast (P) Ltd.

**UTC**

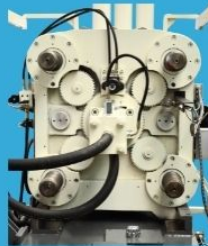
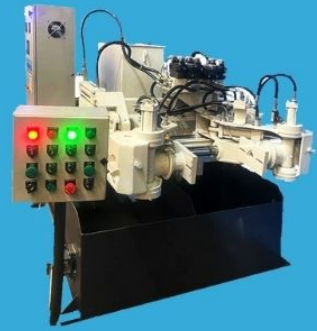
**UNI-TECH CASTING LLP**



## GRAVITY DIE CASTING MACHINES FOR BRASS ALLOYS

## AUTOMATION FOR PRESSURE DIE CASTING MACHINES

- Auto Spray
- Auto Ladle
- Auto Extractor
- Auto Plunger Lubrication
- Auto Gear



**JAI NIDHI AUTOMATION**  
Mfrs of High Pressure Die Casting Components  
and Cnc Machined Components

**FIE**  
Fuel Instruments & Engineers Pvt. Ltd.



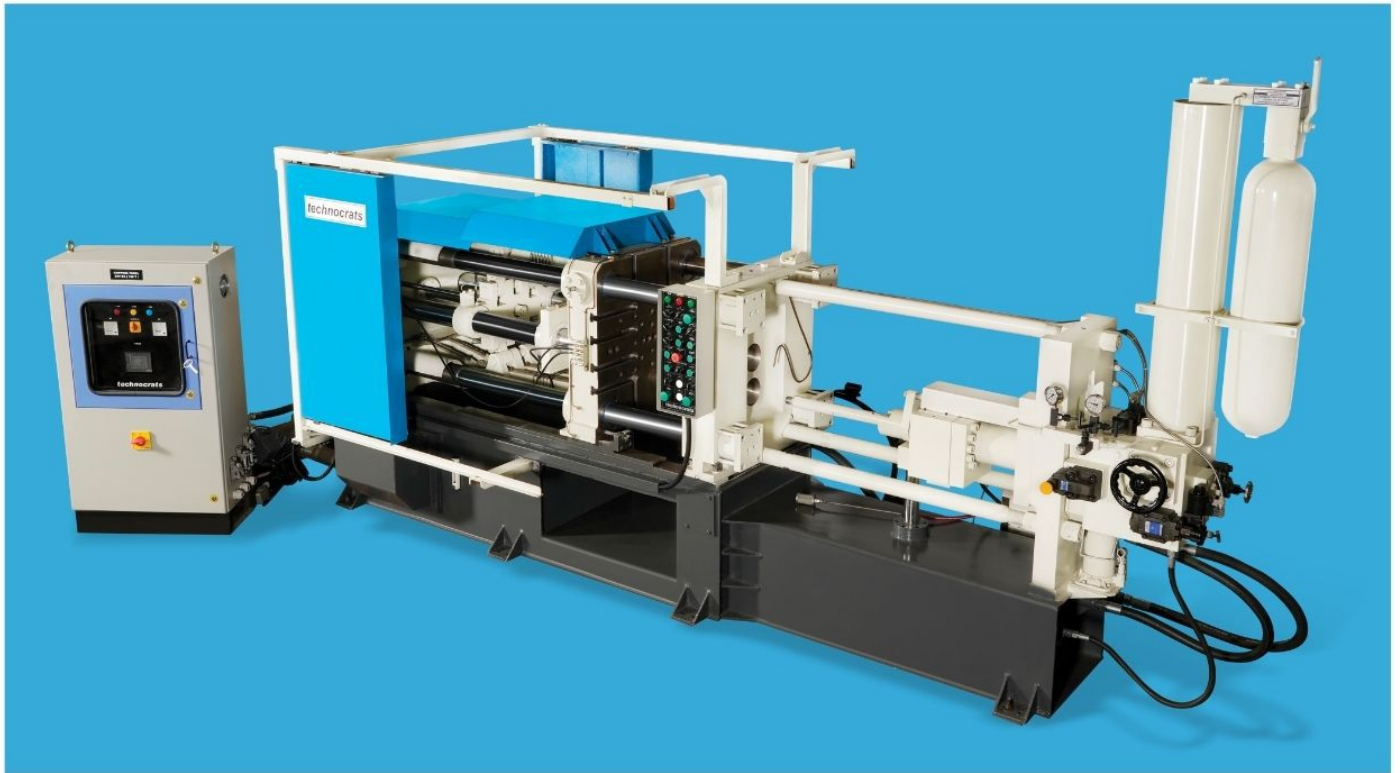
**U C** United Cores



**Sejasmi**  
industries



# ABOUT TECHNOCRATS



*Horizontal Cold Chamber Pressure Die Casting Machine, 180T*

Established in the year 1994 and based in Manesar (Gurgaon), Technocrats Die Casting (India) Pvt. Ltd. is engaged in manufacturing and supplying brilliant quality Pressure Die Casting Machines. Our range comprises Horizontal Cold Chamber Pressure Die Casting Machines (80T to 400T), Hot Chamber Pressure Die Casting Machines (50T to 130T), Gravity Die Casting Machines, Vertical Squeeze Die Casting machines, and Automation for Die Casting Machines.

All products are designed by our technical engineers who are well versed with the changing market demands and customer expectations. Mr. Arun Rajotia, the Managing Director of our company has led us with his foresight and invincible beliefs in our ability which has enabled us to become one of the leading companies in the industry. Our manufacturing unit is outfitted with advanced technology and modern machinery to enable the manufacturing of products that are at par with industry standards. All products are manufactured using the finest quality raw material in compliance with international quality standards which is why we have been hailed as one of the most authentic quality-oriented organizations.



# *tdc* QUALITY POLICY

## WHY US?

We are a reliable manufacturer and supplier of a wide range of products being offered at very affordable prices. Our quality driven products are known for their extraordinary performance and sturdy construction.

- ✓ *HIGHLY SKILLED PROFESSIONALS*
- ✓ *DELIVERY IN STIPULATED TIME FRAME*
- ✓ *PRECISE DESIGNS*
- ✓ *QUALITY DRIVEN APPROACH*
- ✓ *WELL EQUIPPED MANUFACTURING UNIT*
- ✓ *STATE-OF-THE-ART-INFRASTRUCTURE*
- ✓ *WELL TESTED PRODUCTS*

The Quality Policy of Technocrats Die Casting is focused on "Total Customer Satisfaction" to achieve a market reputation of Quality at competitive prices for our products and services. Technocrats are committed to a Quality Policy of continuous improvement leading to timely delivery of error-free products and services and striving for excellence in all endeavors by following quality management systems and procedures.

*CONTINUOUS UPGRADATION OF TECHNOLOGY*



*REDUCTION IN % REJECTIONS*



*DELIVERY TIME REDUCTION*



*COMPLETE AFTER-SALES SERVICES.*





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## HORIZONTAL COLD CHAMBER

Pressure Die Casting Machines

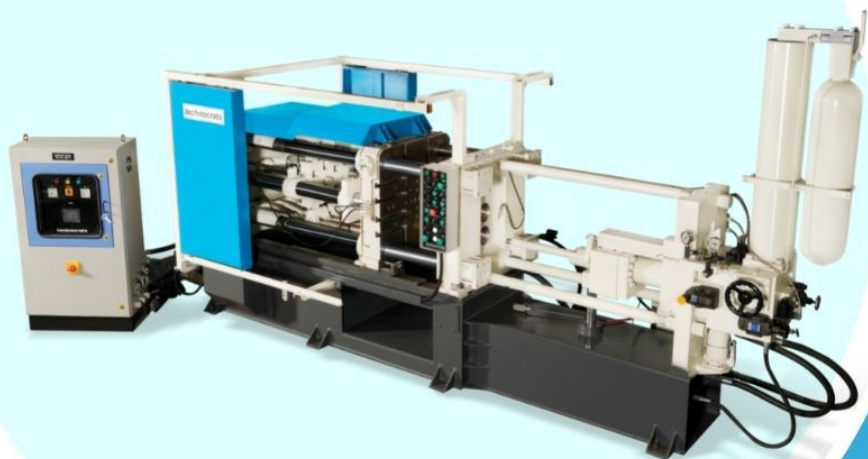
80 TON

120 TON

180 TON

250 TON

400 TON



***Power saving by using SERVO MOTOR and separate accumulator  
for intensification***

## TECHNICAL SPECIFICATIONS

Model		TDC - 80	TDC - 120	TDC - 180	TDC - 250	TDC - 400
Locking Force	Tonnes	80	120	180	250	400
Injection Force with Intensifier	Tonnes	11.5	20	30	38	45
Hydraulic Ejection Force	Tonnes	4	9	15	15	22
Die Mounting Plates (HxV)	mm	520x520	650x650	760x740	930x930	1040x1040
Space Between Tie Bars (HxV)	mm	330x330	428x428	470x470	580x580	665x665
Max. Die Height	mm	400	450	600	750	750
Min. Die Height	mm	200	200	200	250	250
Tiebar Diameter	mm	60	82	90	110	125
Die Opening Stroke	mm	200	300	450	500	600
Injection Stroke	mm	250	275	300	450	450
Ejection Stroke	mm	50	75	100	100	145
Distance between centre and bottom Injection	mm	0,85	0,120	0,150	0,150	0,175
Electric Motor Capacity	kw	7.5	7.5	15	22.4	22.4
Working Pressure	kg./cm2	70	100/35	150/35	150/35	150/35
Hydraulic Pump (Vane Type)	Lit/min	45	17/51	39/90	45/150	45/150
Capacity of Oil Tank	Litres	300	350	500	600	700
Machine Weight	Ton	3.5	4.6	7.5	12.5	17.0
Shot Capacity (Max. Injection Weight)	GM	950	1500	3000	3690	6800

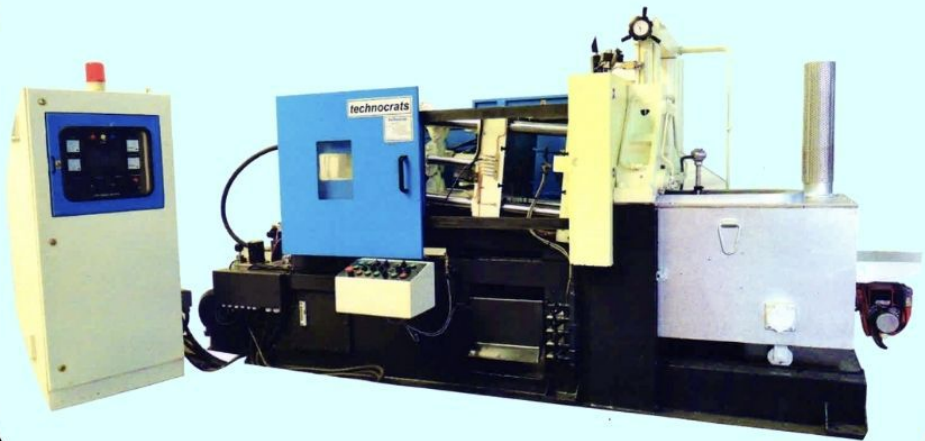
## PRODUCTION DATA

Model		TDC 80				TDC - 120			
Plunger Dia	mm	40	45	50	40	50	60		
Shot Capacity	kg	0.56	0.71	0.88	0.60	1.00	1.40		
Max. Injection Pressure	kg/cm2	920	730	590	1602	1025	717		
Nom. Casting Area at above Injection Pressure	cm	87	110	135	75	117	168		
Model		TDC 180				TDC - 250			
Plunger Dia	mm	50	60	70	80	60	70	80	85
Shot Capacity	kg	1.10	1.60	2.10	2.70	1.70	2.40	3.10	3.50
Max. Injection Pressure	kg/cm2	1538	1071	785	600	1318	968	741	652
Nom. Casting Area at above Injection Pressure	cm	117	168	229	300	200	275	355	383
Model		TDC - 400							
Plunger Dia	mm	70	80	90	100	110			
Shot Capacity	kg	2.70	3.60	4.50	5.60	6.80			
Max. Injection Pressure	kg/cm2	1125	861	681	551	456			
Nom. Casting Area at above Injection Pressure	cm	400	520	660	815	985			

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# HORIZONTAL HOT CHAMBER

Pressure Die Casting Machines



50 TON

75 TON

90 TON

130 TON



## TECHNICAL SPECIFICATIONS

Item	Unit	TDCH50	TDCH75	TDCH90	TDCH130
CLAMPING UNIT					
Clamping Force	Ton	50	75	90	130
Space between Tie Bars	mm	290x290	320x320	375x375	420x420
Die Opening Stroke	mm	220	230	250	305
Die Height (Min. - Max.)	mm	100-330	100-330	120-360	150-450
Platen Size (HxV)	mm	460x460	470x470	560x560	630x630
Ejection Force	Ton	3	5	5	7
Ejection Stroke	mm	60	60	65	80
INJECTION UNIT					
Injection Force	Ton	4	6.5	6.5	10
Injection Stroke	mm	125	130	130	150
Nozzle Traverse Stroke	mm	180	190	190	200
Shot Position	mm	0-40	0-50	0-60	0-80
Plunger Diameter	mm	40-45	40-50	50-55	55-60
Shot Weight	Kg(Zn)	0.8-1.0	0.8-1.05	1.1-1.2	1.7-2.0
Melting Pot Capacity	Kg(Zn)	250	300	450	450
OTHERS					
System Working Pressure	bar	90	120	105	120
Motor Capacity	Kw	7.5	7.5	11	11
Oil Tank Capacity	L	210	210	250	300
Nozzle Heater Consumption	Kw	1.5	2	2	2.5
Diesel Furnace Consumption	Kg/h	4	4.5	4.8	4.8
Machine Weight	Ton	3.5	3.7	4	6

*Illustrations, specifications are not binding and are subject to modifications without notice.*

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# VERTICAL SQUEEZE

Die Casting Machines

80 TON

120 TON

180 TON

250 TON

400 TON



## TECHNICAL SPECIFICATIONS

Description	Unit	TDCV-120	TDCV-180	TDCV-250	TDCV-400
Die Locking Force	Ton	120	180	250	400
Die Mounting	mm	610 X 610	740 X 740	890 X 690	900 X 900
Space Between Tie Bar	mm	400 X 400	475 X 475	565	590 x 590
Tie Bar Dimension	mm	075 X 1720L	095 X 2100L	095 X 2320L	0110 X 2750L
Die Thickness	mm	120-360	180 ~ 450	250 640	280-640
Die Stroke	mm	245	255	320	320
Shot force Injection/squeeze: Cylinder	Ton	21/44	25/58	25/68	25/68
injection/squeeze Cylinder Dia	mm	0140/0200	0150/0230	0150/0250	0150/0250
Plunger Stroke	mm	165	175	230	280
Motor	hp	20	25	30	30
Plunger Diameter	mm	070	080	090	090
Casting Material (Max)	kg	2	2.5	3	3
Automatic Ladle Feeding Capacity	kg	Option 0.4 ~ 2	Option 0.4 ~ 2.5	Option 0.4 ~3	Option 0.4 2. 3
Automatic Extractor		Option	Option	Option	Option
Automatic Sprayer		Option	Option	Option	Option
Machine dimension (LxWxH)	mm	2900x1200 x3150	3100x1250 x3400	3600x1330x3 700	3700x1600x 3800
Machine Weight (Approx.)	Ton	4.8	5.5	7.8	9.2



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# ALLOY WHEEL GRAVITY

Die Casting Machines



## TECHNICAL SPECIFICATION

Top core stroke	1000 MM
Top core clamping force	5 Ton
Side core stroke	110 MM
Side core clamping force	2 Ton
No. of side core	04 Nos
Ejector stroke	90 MM
Ejector force	7 Ton
System pressure	50 kg/cm <sup>2</sup>
Max wheel dia	600 MM (24 inch)
Provision for air for die with solenoid valves	02 Nos
Provision for water cooling of die with solenoid valves	03 Nos

## MATERIAL MAKE/SPECIFICATIONS

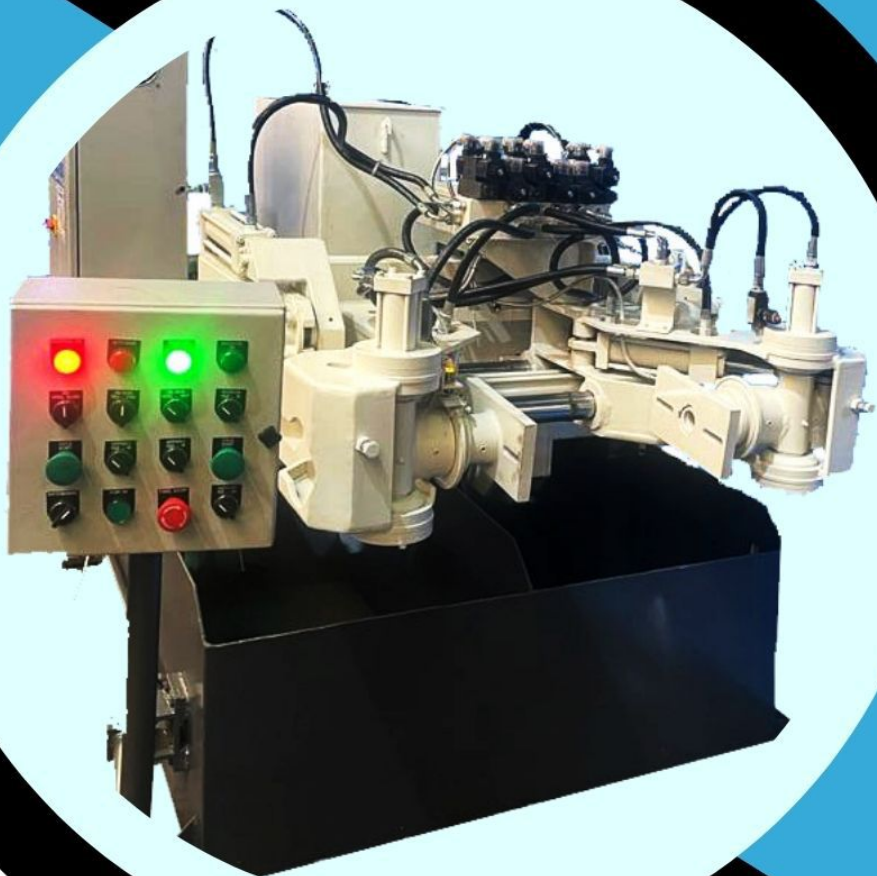
- Steel casting as per IS1030
- Piston rods EN24 chrome plated
- Cylinders imported honed tubes
- Seals of Hallite, London
- Hydraulics of Yuken India Ltd
- PLC/Display of OMRON
- Electricals of Schneider
- Motor ABB

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GRAVITY

Die Casting Machines for Brass Alloys

FOR FAUCET  
INDUSTRY





## SPECIFICATION

Working voltage	440V/3HP
Equipment power	7.5KW
Working oil pressure	50-70 bar
Max mold weight	125kg
Max rotation diameter of the mold	Dia 450mm
Clamping stroke	270mm
Max Interval between fixed boards of the mold	430mm
Hydraulic power	5.5 kw / 7.5 hp
Clamping working pressure	9T
Mold opening working pressure	11T
Angle range of front casting	0-90°
Angle range of side casting	30°-80°
Volume of hydraulic oil tank	110L
Hydraulic oil brand	ENCLO-68
Temperature range for the use of hydraulic oil	5°C-65°C
Outline dimension of the machine	1940x1750 x1650mm
Total weight of the machine	2000kg

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AUTOMATION

FOR PRESSURE DIE CASTING MACHINES



AUTO SPRAY

## SPECIFICATION

Models	SPAS-2	SPAS-3	SPAS-4	SPAS-5
Suitable die casting machine	120T-400T	450T-550T	630T-1000T	1250T-1600T
No. of copper tube	≥40PCS	≥70PCS	80PCS	≥90PCS
Lifting stroke	850mm	1100mm	1200mm	1500mm
Base stroke	250mm	400mm	400mm	500mm
Base motor	90W	90W	90W	90W
Lifting motor	0.37Kw	0.75Kw	0.75Kw	1.5Kw
Power capacity	380V/0.5KVA	380V/0.8KVA	380V/0.8KVA	380V/2KVA
Compressed air pressure	5bar	5bar	5bar	6bar
Mould release agent pressure	4bar	4bar	4bar	4bar
Air consumption	1.0M3/Min	1.3M3/Min	1.4M3/Min	1.5M3/Min
Cycle time	5sec	6sec	7sec	9sec

## FEATURES

1. Used multi-linkage structure, with high mechanical strength, good stability and long life.
2. Used speed reducer and motor from Taiwan, Japanese NSK bearings.
3. Customer can choose Japanese OMRON frequency converter control or YASKAWA servo control (optional).
4. Customer can choose copper nozzle or independent spraying nozzle (optional).
5. With hand-held operating device, the spray program can be edited freely with touch interface. Floating spray or fixed-point spray are available.
6. Equipped with the function of going down in advance, the spray cycle time can be saved effectively.
7. Equipped with the function of mould thickness adjustment.
8. Equipped with the function of fault self-diagnosis display.



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AUTOMATION

FOR PRESSURE DIE CASTING MACHINES



AUTO LADLE

## SPECIFICATION

Models	SPAL-2	SPAL-3	SPAL-4	SPAL-5	SPAL-6	SPAL-7
Suitable die casting machine Max.	120T-400T	450T-550T	630T-1000T	1250T-1600T	1800T-2500T	2500T-4000T
pouring capacity	4.5Kg	6.5Kg	10Kg	20Kg	30Kg	50Kg
Pouring accuracy	+1%	+1%	+1%	+1%	+1%	+1%
Max. distance	1740mm	1900mm	1970mm	2300mm	2400mm	2900mm
Arm motor	0.75Kw	0.75Kw	0.75Kw	1.5Kw	1.5Kw	1.5Kw
Cup motor	0.37Kw	0.37Kw	0.37Kw	0.37Kw	0.37Kw	1.5Kw
Power capacity	380V/1.2KVA	380V/1.2KVA	380V/1.2KVA	380V/2KVA	380V/2KVA	380V/3KVA
Cycle time	12sec	15sec	16sec	20sec	22sec	25sec

## FEATURES

1. The five-linkage structure arm has the perfect movement track with high precision of material feeding and stable running.
2. Integral casting turbine box, one time completed with CNC machining, with high precision and excellent mechanical strength.
3. Horizontally mounted vortex rod and bearings are always below the oil line to ensure good lubrication.
4. Used Japanese NSK bearings and imported oil seals.
5. Super wear resistant copper alloy turbine which can ensure long life.
6. Used Japanese OMRON touch monitor and frequency converter, which is suitable for long time operation even in bad environment.
7. Used KOYO electronic cam to control the position of arm and ladle. The setting of feeding quantity and position is digitized and the failure rate is reduced.
8. Equipped with touch interface, very convenient to set all the parameters, and with fault self-diagnosis function, so that operation and maintenance are extremely easy.
9. Multiple standby mode can match any complex situation, even the moulds with core pulling can also cooperate freely. We have 2 options with manual and automatic operation method, 3 kinds of standby mode and the coordinated control of before standby and after standby.

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AUTOMATION

FOR PRESSURE DIE CASTING MACHINES



AUTO EXTRACTOR



## MODELS AND PARAMETERS

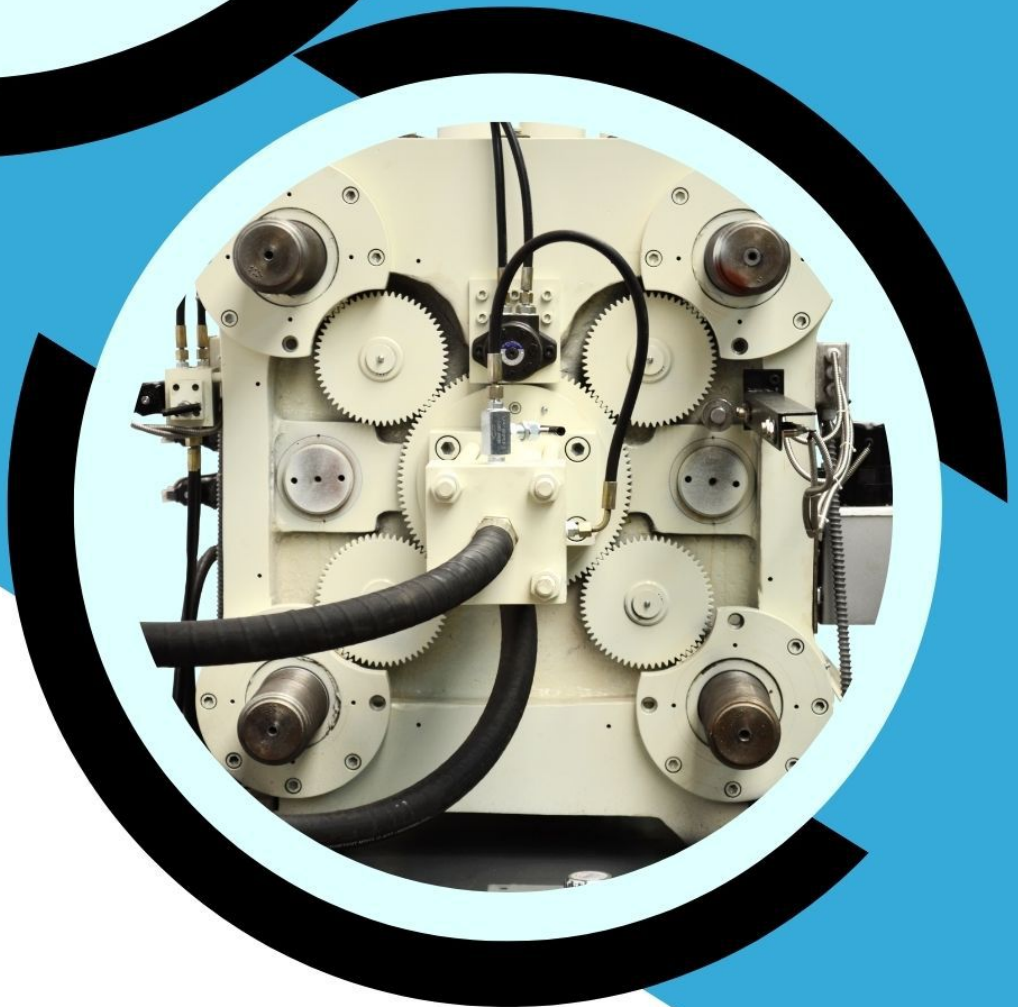
Models	SPAE-2	SPAE-3	SPAE-4
Suitable die casting machine	120T-400T	450T-550T	630T-1000T
Lifting weight	4.5Kg	6.5Kg	12Kg
Arm stroke	1650mm	1920mm	2100mm
Drawing stroke	300mm	400mm	400mm
Arm motor	0.37Kw	0.75Kw	0.75Kw
Drawing motor	Pneumatic	Pneumatic	0.37Kw
Claw diameter	50-70	60-80	80-110
Air inlet bore	PT1/2"	PT1/2"	PT1/2"
Power capacity	380V/1.2KVA	380V/1.5KVA	380V/1.5KVA
Cycle time	12Sec	15Sec	16Sec

## FEATRUES

1. Used horizontal multi-linkage arm, floor mounted and compact design. Linkage arm can have strong bearing capacity. Used imported motor, speed reducer and frequency converter. Used multistage speed control for the arm which is more stable than pneumatic control, it can move at a high speed with no vibration.
2. Used an electrical driven arm for the function of advanced follow-up (the arm will reach the edge of the mould in advance before die opening), which can save the cycle time effectively.
3. he extract device adopts pneumatic claw, which can easily change to three claws and four claws and can match different situations.
4. Used Japanese KOYO electronic cam to control the position of arm. It is more accurate and lower failure rate compared with the traditional mechanical cam, and the position setting is digitized.
5. All the time parameters and position settings can be set by touch screen, which has the function of operation prompt and fault diagnosis, also it can monitor all actions of the extractor.
6. The height of the whole unit can be adjusted, used four columns up and down structure, stable, reliable and labour saving. It is suitable for multi-station extracting.



# AUTO PLUNGER LUBRICATION



# AUTO GEAR



# CONSTRUCTIONAL FEATURES

## BASE FRAME, PLATENS & TOGGLE LINKS

Carefully fabricated from selected steel and stress relieved. Steel Casting platens and toggle links are precision machined on a Horizontal Boring machine equipped with digital readout and VMC machines.

## TIE BARS, AUXILLARY GUIDE BARS & PISTON RODS

Manufactured from high tensile steel, hard chrome plated and precision ground, Bronze bushes of liberal dimension have been used on sliding surfaces.

## HYDRAULIC CYLINDERS

Made out of extra heavy seamless pipes. These cylinders are carefully machined and honed on imported honing machines. "V" shaped Hydraulic packing of NITRILE RUBBER with provisions for adjustment has been used on Hydraulic Cylinders.

## HYDRAULIC MONO BLOCK

All hydraulic valves are mounted on Hydraulic Blocks to eliminate Cumbersome Hydraulic Piping. Hydraulic equipment is of renowned YUKEN INDIA LTD.

## ELECTRICAL CONTROLS

The switch box houses all electrical controls and is mounted on the fixed Platen for ease of operation. The switch box is operated through a control cabinet which houses contractors, relays, timers, PLC

## ACCUMULATOR

To provide fast and large quantities of Hydraulic oil to injection cylinders for high velocity of molten metal, a NITROGEN filled ACCUMULATOR is incorporated.

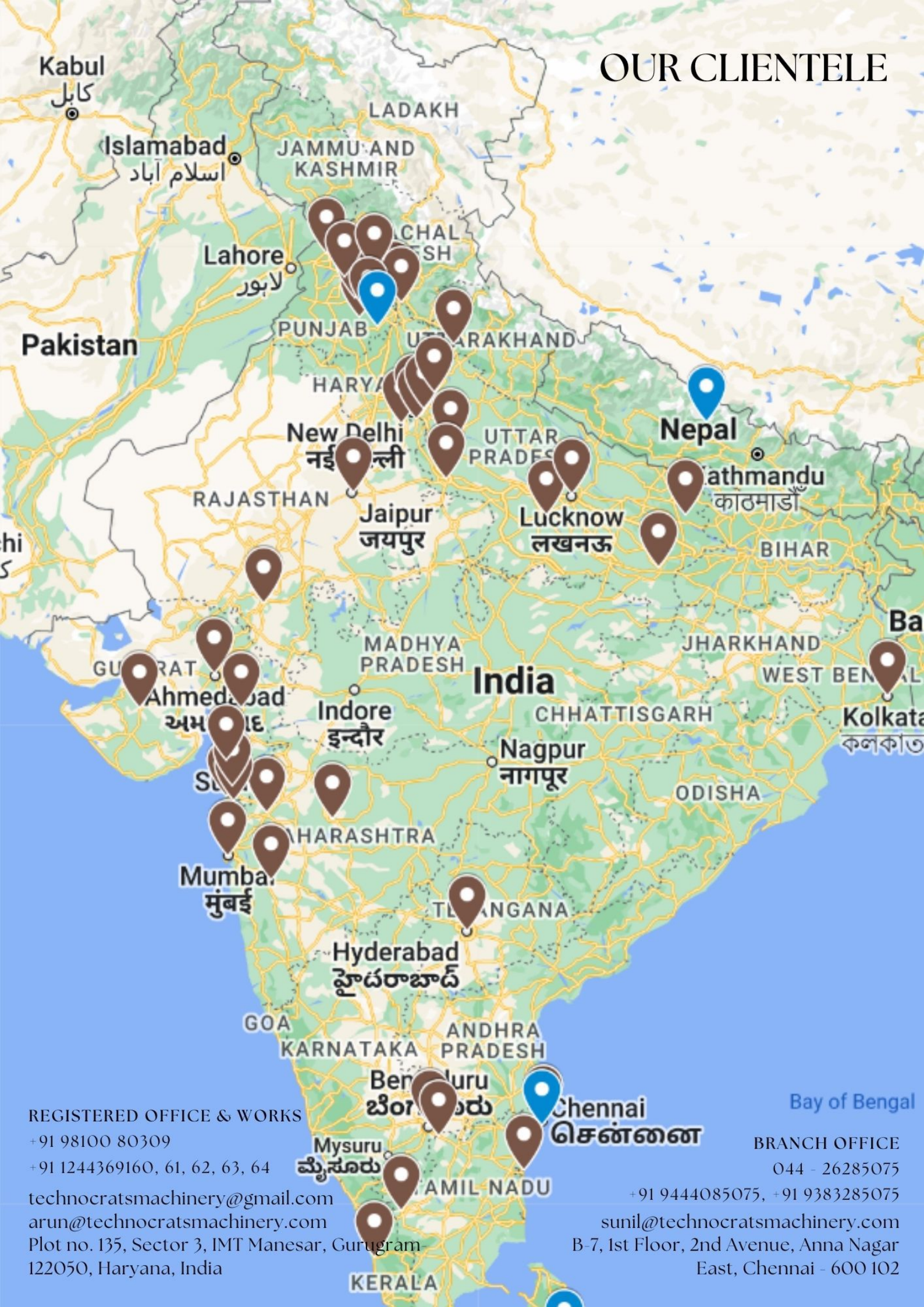
## OPERATION

Machines manufactured by us are ideally suitable for BRASS, ALUMINIUM, ZINC and Tin Alloys. Depending on the gate geometry, the machine can be adjusted for centre and bottom feeding without tempering with any of the hydraulic fittings.





# OUR CLIENTELE



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