

Technocrats



**Horizontal Cold Chamber
Pressure Die Casting Machine**

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SALIENT FEATURES

- Three Stage Injection
- Center and bottom injection position
- Centralized lubrication
- Simple Hydraulic System
- Heat exchanger incorporated in return flow
- Hand and Semi-Automatic cycle operation
- Built in provision for core cylinders.
- Provision for zero leakage of Nitrogen Gas. (Piston Accumulator)

OPTIONAL ACCESSORIES

- Programmable Logic Control (PLC) Panel
- Die Stroke adjustment.
- Shutter for safety.
- Auto extractor / Auto knockout
- Auto Spray.

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	8	15	15	22
Die Mounting Plates (H×V)	mm	520×520	650×650	760×740	810×860	950×980
Space between Tie Bars (H×V)	mm	330×330	428×428	470×470	510×590	600×660
Max. Die Height	mm	400	450	600	750	750
Min. Die Height	mm	200	200	200	250	250
Tie Bar Diameter	mm	60	72	90	110	125
Die Opening Stroke	mm	200	300	450	500	600
Injection Stroke	mm	250	275	300	350	400
Ejection Stroke	mm	50	75	100	100	145
Distance between centre & bottom injection	mm	0, 85	0, 120	0, 150	0, 150	0, 90, 130, 180, 220
Electric Motor Capacity	kw	7.5	11	15	22.4	22.4
Working Pressure	kg. / cm ²	70	100/35	150/35	150/35	150/35
Hydraulic Pump (Vane Type)	lit. / min	45	30/60	39/90	45/110	45/140
Capacity of Oil Tank	litres	300	350	500	600	700
Machine Weight	Tonnes	3.5	4.6	8.0	12.5	17.0
Shot Capacity (Max. Injection Weight)	GMS	950	1500	3000	3690	6800

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 Horizontal Boring machines equipped with digital read out.

Tie Bars, Auxiliary Guide Bars & Piston Rods

Manufactured from High tensile steel, Hard chrome plated and precision ground. aluminium Bronze guide bushes of liberal dimensions 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 have 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 mounted on the fixed Platen for ease of operation. The Switch box is operated through a control cabinet which houses contactors, relays and timers.

Accumulator

To provide fast and large quantities of Hydraulic oil to the cylinders for high injection velocity of molten metal, a NITROGEN filled ACCUMULATOR is incorporated. The injection speed can be varied through a flow regulating valve.

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 center and bottom feeding without tempering with any of the hydraulic fittings.

PRODUCTION DATA

Model		TDC-80					TDC-120				
Plunger Dia	mm	35	40	45	50	55	35	40	50	60	65
Shot Capacity	kg.	0.43	0.56	0.71	0.88	1.06	0.50	0.60	1.00	1.40	1.60
Max. Injection Pressure	kg./cm ²	1200	920	730	590	490	2079	1602	1025	714	606
Nom. Casting Area at above injection Pressure	cm	66	87	110	135	163	58	75	117	168	198

Model		TDC-180						TDC-250							
Plunger Dia	mm	40	50	60	70	80	85	40	45	50	55	60	70	80	85
Shot Capacity	kg.	0.7	1.10	1.60	2.10	2.70	3.00	0.78	0.98	1.20	1.46	1.70	2.40	3.10	3.50
Max. Injection Pressure	kg./cm ²	2403	1538	1071	785	600	528	2945	2338	1897	1558	1318	968	741	652
Nom. Casting Area at above injection Pressure	cm	75	117	168	229	300	340	84	107	140	160	200	275	355	383

Model		TDC-400							
Plunger Dia	mm	50		60	70	80	90	100	110
Shot Capacity	kg.	1.39		2.00	2.70	3.60	4.50	5.60	6.80
Max. Injection Pressure	kg./cm ²	2191		1531	1125	861	681	551	456
Nom. Casting Area at above injection Pressure	cm	182		290	400	520	660	815	985



**INJECTION SYSTEM
MODEL TDC - 180, 250, 400**

Mfd. & Mkted. by:

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