

Shibaura Machine



DIE CASTING MACHINE
DC135J

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FULL-TIME HIGH PRODUCTION!

The concepts of DC135J are its increased reliability and enlarged casting capability. It promises stable production even under harsh working conditions such as continuous quick cycle operation, and does achieve its high output.

Furthermore, the injection performance has been greatly improved, making possible a wide range of casting from thin-walled parts to thick-walled parts. DC135J WITH THE INBORN HIGH PERFORMANCE MAKES ITS DEBUT.

DIE CASTING MACHINE DC135J



This machines has optional features.

With selectable features and high performance "J-S & J-T" both fulfill the broadening customers' needs.

EQUIPPED WITH "CASTING VISOR", THE "J-S" TYPE HAS CHANGED A STANDARD MACHINE INNOVATIVELY.



本機はオプションを含みます。 The machine in photograph includes some optional features.

Presenting the new machine that has the operational ease of standard machines as well as the preciseness of computer-controlled machines. Putting necessary input items together on a single panel, enriching optional features, and pursuing the operational ease, the machines is built for the operator.

Machine Condition
The machine status can be confirmed by glancing at the indicator lamps.

Selection of sequence
The selection of sequence for the peripheral equipment such as ladler can be set simply by pushing the buttons.

Timer
Timers for the die casting machine and peripheral equipment can be set.

Core order
Core sequence before die closing and after die opening can be selected freely.



Presetting
The high-speed-switching position in injection stroke can be set. In addition, the low speed, high speed and intensification valve openings as well as the ejection stroke can be set as optional features.

Data number and data
The timers, the position settings and their preset values are displayed and can be changed.

Die number
Up to ten die data files can be saved and recalled. When recalling a die number, the saved casting conditions are immediately restored, enabling a vast saving of set-up time.

THE "J-T" TYPE IS EQUIPPED WITH NEW TOSCAST (DIE CASTING MACHINE TOTAL CONTROL SYSTEM), WHICH IS AIMED AT THE OPEN NETWORK ACTIVITY IN THE FUTURE.

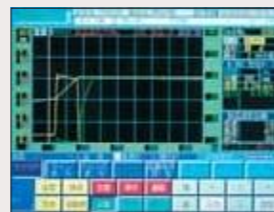
DC135J-T, equipped with new TOSCAST, has enhanced its operational ease and the high performance. Provision for *LAN and *expanded function for host computer communication enhance the centralized control function, making it the machine that can be recommended to those who are looking for new models of die-casting production in the future.



Various conditions for casting can be set, and the batch loading is possible.

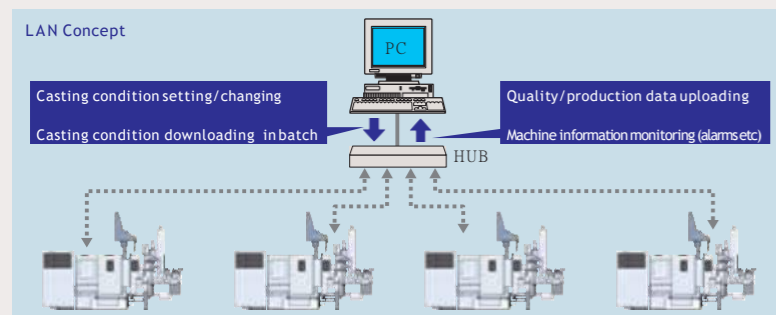


SHIBAURA MACHINE'S long-time-accumulated know-how is now applied to theoretical calculations, making them more practical.



Shot profiles and machine motions can be displayed; alarms and their output methods can be set.

注) *オプション対応 Note: *denotes optional features.



A 32MB memory card has been adopted, making its memory capacity more than 20 times the ones adopted so far.



Touch panel keys are adopted for the operation, making it possible to input just by touching softly.



The machine in photograph includes some optional features.

SHIBAURA MACHINE HAS PONDERED IF THAT TECHNOLOGY IS REALLY USEFUL TO CUSTOMERS. WHY NOT COMPARE ITS OPERATIONAL EASE, PRODUCTIVITY AND SHOT PERFORMANCE.

DIE CASTING MACHINE
DC135J

"The operator's panel on the 135ton was a little bit awkward to use."

It has been made same as the other models, making it possible to operate without feeling the awkwardness.

"Wanted to save shot analog profiles, but the floppy disk did not have enough capacity."

New TOSCAST uses a 32MB memory card, having a capacity about 20 times the floppy disk, and making it possible to save both digital and analog data. (J-T machines only)

"Inputting casting conditions to the computer-controlled machine is difficult or tiresome."

It is rather easy to input the conditions by referring to the

TOSCAST'S calculation results.
For new TOSCAST the theoretical casting formulas have been reviewed to make them more practical. Why not try for yourself. (J-T machines only)

"It would be convenient to be able to preset the shot, die locking and ejection even on the standard machine (J-S machine)."

It is possible as optional items.
They are standardized options that make possible condition management for up to 10 dies.

"Leveling and welding on installation takes time."
"Redoing the installation every time the machines changes is troublesome and costly."

The mounting-pads system started with the H-series still holds true; no welding is required, simple installation.
*The existing foundation can be appropriated.

"It was hard to see the water running into the water-collecting box on the 135ton."

Its configuration has been changed, making it easy to see the water.

"Opening the cover every time adjusting the high-speed-switching LS is cumbersome. What about its repeatability?"

Not to mention the J-T machine, the J-S is also equipped as standard with a shot stroke sensor, greatly improving its operational ease and repeatability.

"Would like to increase the high speed a bit more."

The speed capacity has been increased by 33%, also making its accelerating response much better.

"Would like to increase the sleeve diameter, but its power is not enough to do it."

The injection force has been increased by 19%.

"The conventional plunger lubricator was made difficult to fine-adjust the lubricant to the amount actually used (2cc or less). Even that location was inconvenient, making the adjustment difficult."

The max delivery, 5cc has been changed to 2cc, assuring the improved delivery accuracy. The unit is mounted at the tip of lower shot end, making its operational ease improved by far.

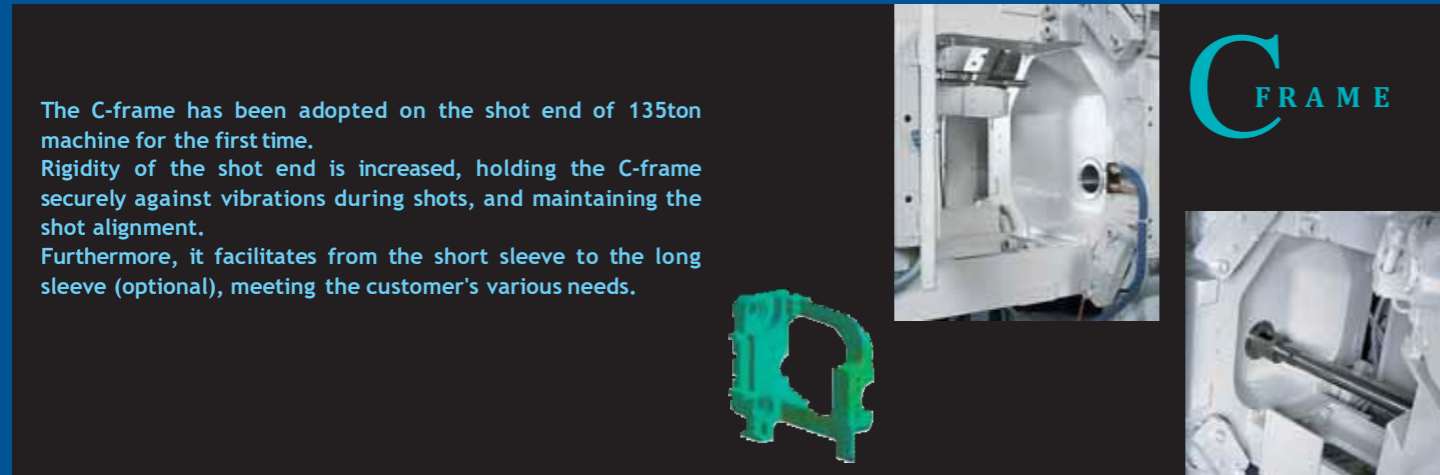
The machine in photograph includes some optional features.
All the points mentioned above are in comparison with our conventional models.

Note: * Please check with us as there are cases where the foundation cannot be appropriated.

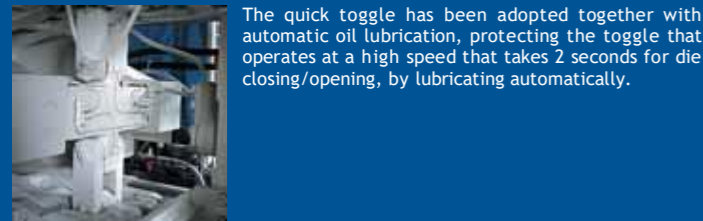
NEW DIE CASTING MACHINE DC135J

伝統と革新 TRADITION AND INNOVATION

The traditional technology, accumulated with machines of 250ton and over, is now combined together with a new technology, making the reliability and operational ease greatly upgraded.



The C-frame has been adopted on the shot end of 135ton machine for the first time. Rigidity of the shot end is increased, holding the C-frame securely against vibrations during shots, and maintaining the shot alignment. Furthermore, it facilitates from the short sleeve to the long sleeve (optional), meeting the customer's various needs.



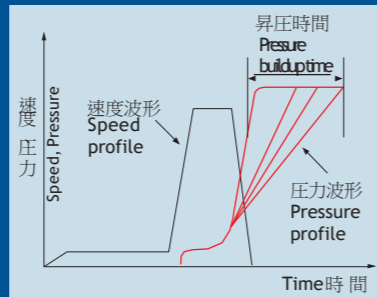
The quick toggle has been adopted together with automatic oil lubrication, protecting the toggle that operates at a high speed that takes 2 seconds for die closing/opening, by lubricating automatically.



The ejection unit has been newly designed under the same concept as that of the 250/350J; while the rigidity is increased, the working ease on replacing the die or on cleaning is ensured and intact as ever. (Ejection cylinder independent, guide bars inside)



The J-T machine is equipped with an oil-cleaner as a standard feature. It protects the hydraulic equipment from contamination of the hydraulic fluid.



The traditional intensification-cylinder-system is employed as a standard feature, suppressing the intensification time lag (delay in pressure buildup) to its minimum, and making it possible to adjust independently the speed and pressure buildup time.

Reliable Automated Devices that Support the Quick Cycle (Optional)

Automatic Ladle Device Type DAL135SVSH for DC135J-S Type DAL135SVSH2 for DC135J-T



インバータ制御によりスムーズでしかも精度の高い注湯動作を可能にしました。

The inverter control makes possible a smooth and highly precise pouring motion.

Part Take-out Device Type DTO135SLH



新リンク機構とインバータ制御の採用により、スムーズな搬入・搬出動作を可能にしました。

Adoption of the new link mechanism and the inverter control make possible the smooth move-in/take-out motions.

New Automatic Spray Device Type DBS135MSH3



新スプレーヘッドの採用により離型剤の微細噴霧化が可能になりました。

Adoption of the new spray head makes it possible to finely atomize the die lubricant.

Standard specifications. Optional specifications

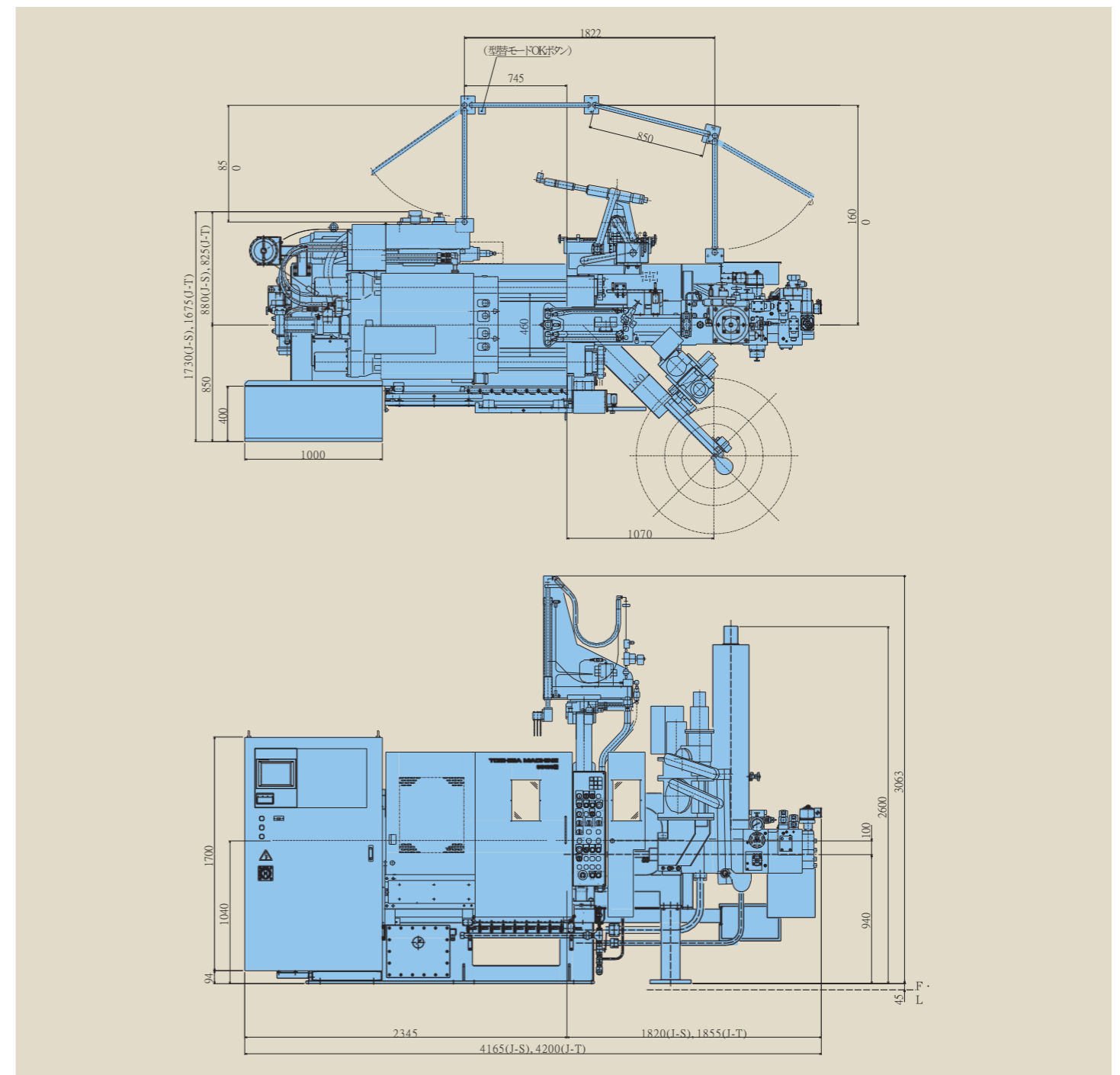
仕様項目	Specification Items	J-S		J-T	
		標準仕様 Standard	オプション Option	標準仕様 Standard	オプション Option
1	ダイアレート (固定・移動) 薄機械加工	●	●	●	●
2	トルル部自動潤滑装置 (定量分配方式・警報回路付)	●	●	●	●
3	ダイハイト調整装置	●	●	●	●
4	デジタルロードメータ (J-T機はTOSCAST画面)	●	●	●	●
5	型締力自動制御	●	●	●	●
6	操作側上部タイバー引抜装置	●	●	●	●
7	注湯開始LS (弊社給湯装置の場合)	●	●	●	●
8	搬出開始LS (弊社搬出装置の場合)	●	●	●	●
9	ラチェット式安全フック	●	●	●	●
10	型厚プリセット機構	●	●	●	●
11	押出位置プリセット機構	●	●	●	●
1	射出条件自動制御	●	●	●	●
2	高速切替位置プリセット機構	●	●	●	●
3	低速・高速・増圧バルブプリセット機構	●	●	●	●
4	ショートスリーブ仕様	●	●	●	●
5	ロングスリーブ仕様	●	●	●	●
6	低速・高速加速時間調整機構	●	●	●	●
7	射出力自動調整	●	●	●	●
8	射出力調整機構	●	●	●	●
9	真空用射出LS追加	●	●	●	●
10	射出押ボタンスイッチ追加	●	●	●	●
11	射出足踏スイッチ追加	●	●	●	●
12	ASME規格 (ガスアキュムレータに変更)	●	●	●	●
1	中子自由選択回路	●	●	●	●
2	中子スプレー回路 (弊社スプレー装置の場合)	●	●	●	●
3	移動中子1組	●	●	●	●
4	移動中子1組追加	●	●	●	●
5	移動中子2組追加	●	●	●	●
6	固定中子1組追加	●	●	●	●
7	移動中子1スクイズ兼用回路追加	●	●	●	●
8	スクイズ専用回路追加 (移動)	●	●	●	●
2	難燃系作動油仕様	●	●	●	●
3	鉱物系作動油対策	●	●	●	●
4	ダイ冷却水調整バルブ	●	●	●	●
5	ダイ冷却水集水タンク (固定反操作側1個)	●	●	●	●
6	オイルクリーナー取付	●	●	●	●
1	コンタミコレクタ取付	●*	●*	●*	●*
2	操作側手動式ドア	●*	●*	●*	●*
1	トルサイドカバー (操作側・反操作側)	●	●	●	●
3	射出部カバー (操作側)	●*	●*	●*	●*
4	射出部カバー (反操作側)	●*	●*	●*	●*
5	反操作側柵	●	●	●	●
6	型開限安全フック	●	●	●	●
7	非常停止ボタン (3カ所)	●	●	●	●
8	型締ノリビート回路 (型締押ボタン回路確認)	●	●	●	●
9	インターロック付き制御盤	●	●	●	●
10	操作側手動式ドア (中子対応)	●	●	●	●
11	操作側自動ドア	●	●	●	●
12	反操作側手動ドア	●	●	●	●
13	光電管安全装置	●	●	●	●
1	ダイカストマシンコントロール (TOSCAST)	●	●	●	●
2	キャストインクバイザ	●	●	●	●
3	プログラマブルコントローラ (TC200) 制御	●	●	●	●
4	全自動回路	●	●	●	●
5	他社製自動機インターロック	●	●	●	●
6	他社製自動機ロボットインターロック	●	●	●	●
7	Y-Δ起動	●	●	●	●
8	全閉外扇モータ	●	●	●	●
9	制御盤にコンセント (AC100V) 取付	●	●	●	●
10	制御盤にコンセント (AC200V) 取付	●	●	●	●
11	制御盤上部にバトライト取付	●	●	●	●
12	温度モニタ仕様	●	●	●	●
13	パソコンCRTプログラマ付属	●	●	●	●
14	TOSCAST用プリンタポート取り付け	●	●	●	●
15	TOSCAST用プリンタ付属	●	●	●	●
16	TOSCAST用プリンタケーブル付属	●	●	●	●
17	PC用簡易プログラマ付属	●	●	●	●
18	スクイズマスタ (SQM) 取付対策	●	●	●	●
19	CASTVIEW取付対策	●	●	●	●
20	真空装置 (DVF200B2) 取付対策	●	●	●	●
3	塗装色 (アイボリーとグレーのツートン)	●	●	●	●
4	付属工具 (工具箱付き)	●	●	●	●
5	自動給湯装置	●	●	●	●
6	湯量不足信号出力	●	●	●	●
8	プランジャ潤滑装置	●	●	●	●
9	プランジャ潤滑ミキシング方式	●	●	●	●
10	自動スプレー装置	●	●	●	●
11	離型剤圧送タンク (200L)	●	●	●	●
12	製品搬出装置	●	●	●	●
13	光電式製品検知仕様	●	●	●	●
	真空装置 (DVF)	●	●	●	●
	スクイズマスタ (SQM)	●	●	●	●

*輸出はオプションです。 *Mandatory in certain countries

DC135J Major Specifications

	仕様項目	Specification Items	単位 (Unit)	仕様数値 (Specification Values)
型締 Die-close	型締力	Die-locking force	kN	1350
	ダイプレート寸法 (V×H)	Platen dimensions (V×H)	mm	680×680
	タイバー間隔 (V×H)	Tie-bar spacing (V×H)	mm	460×460
	タイバー直径	Tie-bar diameter	mm	85
	金型厚さ	Die thickness	mm	500~250
	ダイストローク	Die stroke	mm	350
射出 Injection	最大射出力	Maximum injection force	kN	193
	増圧比	Pressure intensification ratio		1:2.25
	プランジャストローク	Plunger stroke	mm	305
	チップ突出量	Tip protrusion	mm	165 (or 120)
	射出口位置	Injection port position	mm	-100
	射出速度	Injection speed	m/s	0.05~6.0
	チップ直径	Tip diameter	mm	45~60
押出 Ejection	スリーブ長さ	Sleeve length	mm	167
	押出力	Ejection force	kN	76.6
油圧 Hydraulic	押出ストローク	Ejection stroke	mm	15~75
	移動中子数	Number of movable sidecores	個 (unit)	3/8"×1個 (unit)
冷却水 Cooling water	移動中子ポート数	Number of movable side core ports	組 (set)	1/2"×2組 (sets)
	作動圧力	Operating pressure	MPa	15
	必要作動油量	Required amount of hydraulic fluid	R	250
	作動油タンク容量	Hydraulic fluid tank capacity	R	200
	ダイ冷却水入口接続管径	Die-cooling-water inlet port connecting size	Rc	1"
電気 Electrical	ダイ冷却水出口接続管径	Die-cooling-water outlet port connecting size	Rc	2"
	オイルクーラ冷却入口管径	Connecting port size for oil cooler inlet	Rc	1"
	オイルクーラ冷却出口管径	Connecting port size for oil cooler outlet	Rc	1"
	ダイ冷却調整バルブ	Die-cooling-water regulating valve	Rcx個 (unit)	1/4"×10個 (unit)
エア Air	チップ冷却調整バルブ	Tip-cooling-water regulating valve	Rcx個 (unit)	1/4"×1個 (unit)
	必要冷却水 (オイルクーラ用)	Required water flow (for oil cooler)	R/min	35
	必要冷却水 (金型用)	Required water flow (for die cooling)	R/min	70~120
	油圧ポンプ用モータ	Motor for hydraulic pump	kW	15
	ダイ厚調整用モータ	Motor for die-height adjustment	kW	0.2
大きさ Size	潤滑ポンプ用モータ	Motor for lubrication pump	W	40
	電源容量	Electrical capacity	kVA	23
エア Air	電源	Power source	V	AC 200/220
	エア接続口	Air connecting port	Rc	1/4", 3/8" 各1 (each one)
	エア圧力	Air pressure	MPa	0.4
大きさ Size	所要床面積	Required floor space	mm	4165×1730(J-S), 4200×1675(J-T)
	機械高さ	Machine height	mm	2600
	機械質量	Machine mass	ton	4.5

External view



Die mounting dimensions

