

イメージは常に未来へ



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Q-308B

PRESS GIKEN, INC.

さらにハイグレードをめざす PGのクイック・ダイ・チェンジシステム

PG'S Quick Die Change System developed for further high grade products.

Hydraulic(油圧式)Q-308



- コンパクトな外観と、大きな金型有効面積によってプレス機の制約が僅少です。
- クランプは油圧で行い、瞬時に4ヶ所のクランプが作動します。
- 油圧源(ブースター)の圧力スイッチをプレスの非常停止回路に接続しているために、アンクランプ時や、油圧が一定圧力以下に下がった時に、プレスの非常停止が働きます。
- 2箇所のロケーション(位置決めピンと穴)が高精度のかなめです。

FEATURES

- Compact in size yet wider effective area for dies that can minimize the limitation of the press machines used.
- Oil hydraulic force utilized for clamping, that can actuate the clamps instantly at 4 places.
- Pressure switch for the hydraulic pressure source(booster) is connected with the emergency stop circuit in the press machine SO, the emergency stop function is put in motion during unclamping process, or if the hydraulic pressure falls below the specified level.
- Locating at two points (with the locator pins and holes) assure a high degree of accuracy.

Mechanical(メカニカル)Q-308



- プレスの変更、金型支給などの生産体制の変更に対する適応性が容易になります。
- クランプと機械が一体構造のため、スムーズな動きと高い剛性の専用T型ボックスレンチで締め付けを行います。
- 油圧クランプにグレードアップする場合、クランプと油圧源の追加だけで油圧式Q-308になります。
- 2箇所のロケーション(位置決めピンと穴)が高精度のかなめです。

FEATURES

- improved adaptability to cope with the alterations in the production systems, such as modification of dies used, press working on supplied dies, etc.
- The one-piece construction of the clamp mechanism which permits the smooth movement and tightening with the special T-type box wrench with high rigidity, supplied for the exclusive use for the purpose.
- When grade-up is desired to the hydraulic clamp system, it can readily be converted into the hydraulic die set Q-308 just by replacing the clamp mechanism and adding an oil hydraulic power source.
- Locating at two points (with the locator pins holes) assure a high degree of accuracy.

プレスの台数が少なく、金型の種類が多い工場に最適な《Q-308》です。

- コンパクトな外観と、2種類のベースプレートを利用し、一層の標準化にご活用ください。
- サイズは標準ベースプレートNo.2とNo.3、No.3とNo.4が共用できる2種類があります。
- 本機は標準《Q-308》同様、油圧式とメカニカル式があります。

Variances of the Q-308 Die Set ideal for press shops engaged in jobshop type operations using many kinds of dies on a few number of press machines.

- Compact design. Adaptability to further standardization making use of the base plates that come in two different kinds.
- Available in two sizes ; in combinations of No.2 and No.3 of the standard base plate, and of No.3 and No.4.
- As in the case with the standard Q-308 die set, this unit also comes in either hydraulic type or the mechanical type.

Combination Type

The dual-function version of the Q-308
コンビタイプ Q-308

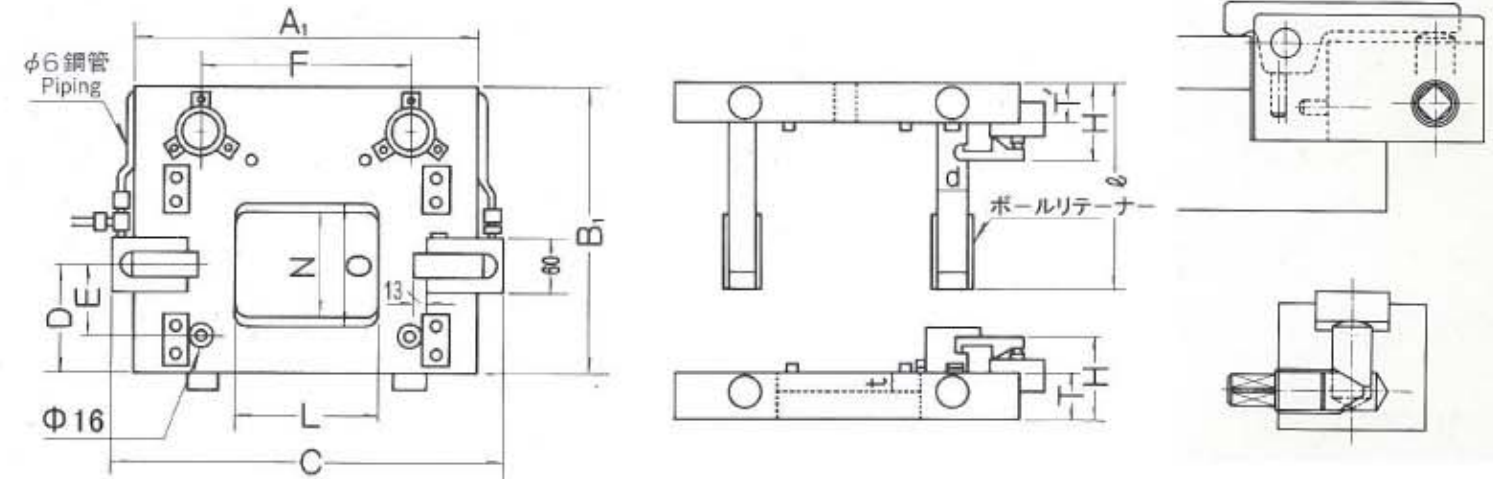


Q-308システムは !

- 多種少量生産のために
- 金型を早く安く作るために
- 製品在庫をゼロにするために

Q-308の仕様

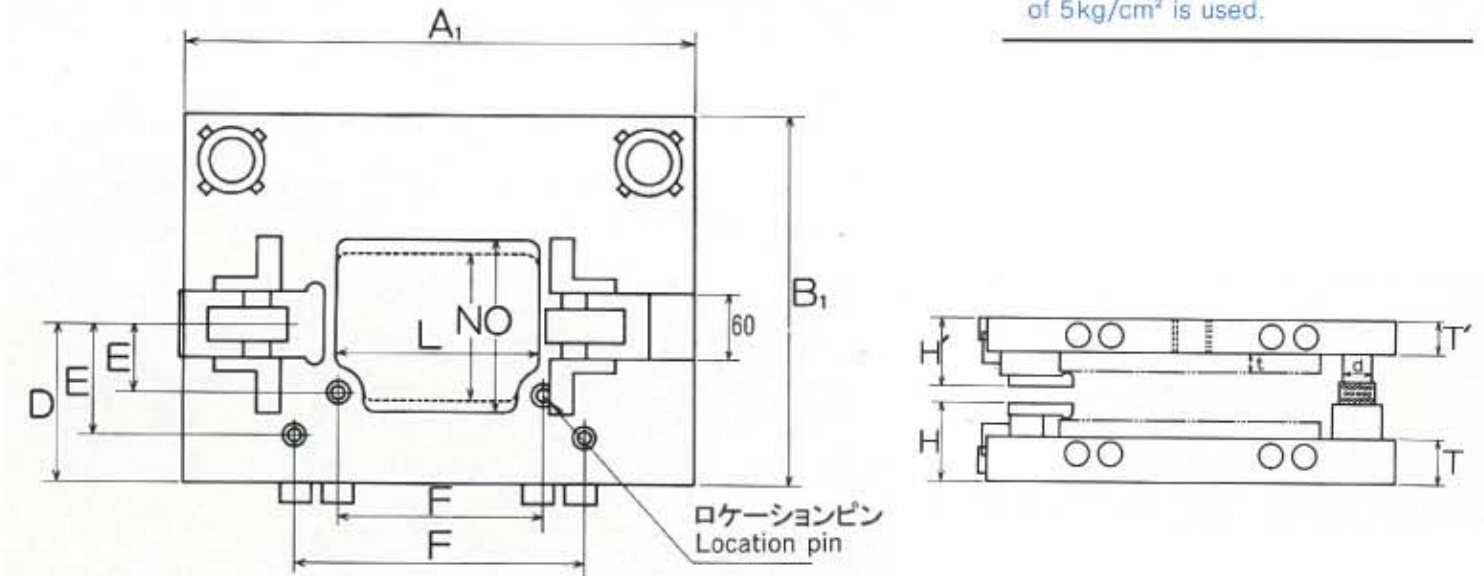
Dimensions of the Q-308



型式 TYPE	A ₁	B ₁	C	D	H	H'	L	N	O	T	T'	d	l
No.1	260	180	311	60	71	71	50	60	85	40	40	φ22	160
No.2	320	230	371	85	71	71	110	80	105	40	40	φ25	155 170 185
No.3	360	300	411	115	87	77	150	110	135	50	40	φ32	175 190 205 220
No.4	460	400	511	160	97	82	220	160	185	60	45	φ38	235

*メカニカルQ-308はC寸法のみ6mm長くなる。

- メカニカルQ-308は、C寸法のみ6mm長くなります。
- 油圧式Q-308のクランプ力は空気圧5kg/cm²の時1,100kgfとなります。
- Only the dimensions C are longer by 6mm for the models in the mechanical Q-308.
- Clamping force of the hydraulic Q-308 is 1100kgf when a pneumatic pressure of 5kg/cm² is used.



Challenging improvement in press efficiency and reduction in die costs.

型式 TYPE	A ₁	B ₁	C	D	H	H'	L	N	O	T	T'	d	l	A	B	E	F	t
No.2,3 コンビ Combi	440	300	×	115	96	80	max 150	max 105	125	50	40	φ32	155 170 185	210 250	150 210	45 75	180 220	16 22
No.3,4 コンビ Combi	510	400	×	160	97	82	max 220	max 160	185	60	45	φ38	235	250 350	210 300	75 210	220 320	22

PGの標準化システム

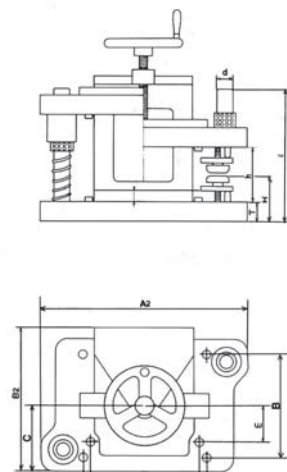
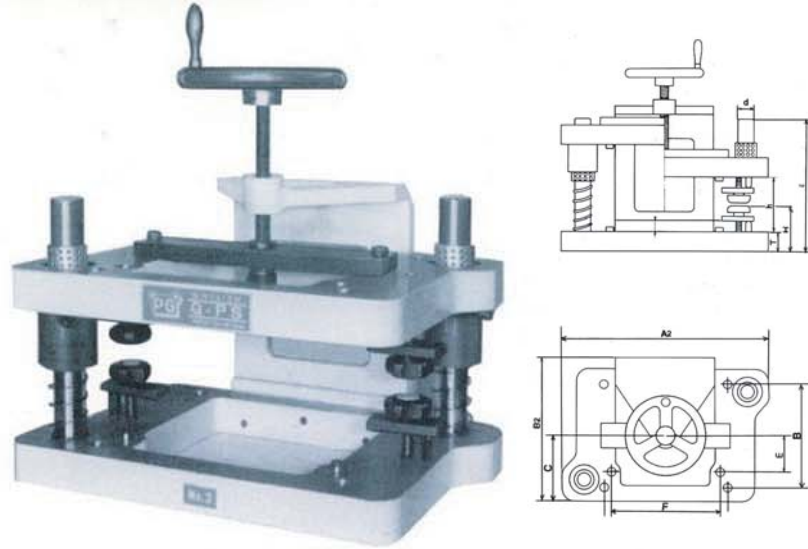
The PG Standardization System

PGクイックダイチェンジシステムは、標準化を自動的に促進します。

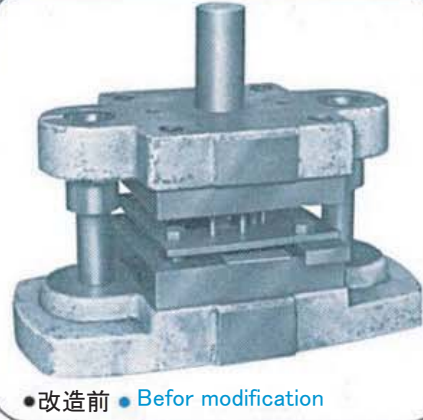
PG's Quick Die Change System lends itself to the promotion of standardized press working processes.

■金型製作手順 Sequence of die fabrication

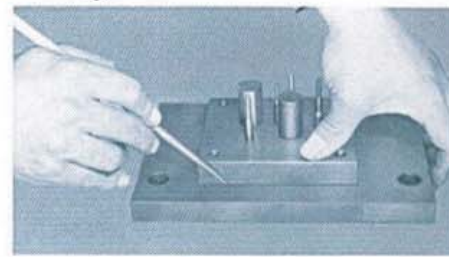
プリセッタ



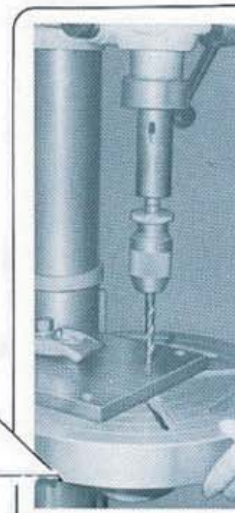
型式 TYPE	A ₁	B ₁	C	H	T	d	ℓ	A	B	E	F	t	h(クイックダイ) Workable die height
No.1	280	167	75	87	40	22	230	150	100	20	120	16	100-145
No.2	370	217	100	87	40	25	240	210	150	45	180	16	100-145
No.3	420	293	135	93	40	32	270	250	210	75	220	22	120-265
No.4	610	393	185	98	45	38	280	350	300	120	320	22	130-270



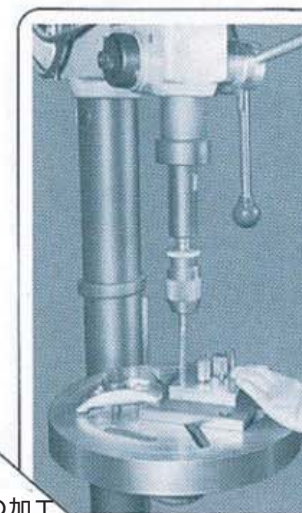
●改造前 ● Befor modification



●金型位置決め ● Locating the die

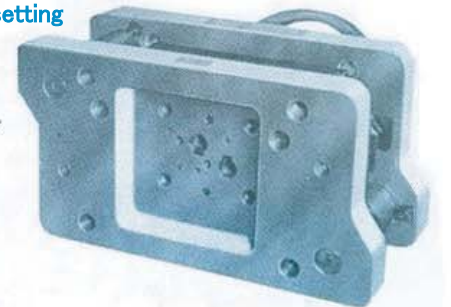


●取付穴の加工 ● Drilling mounting holes.

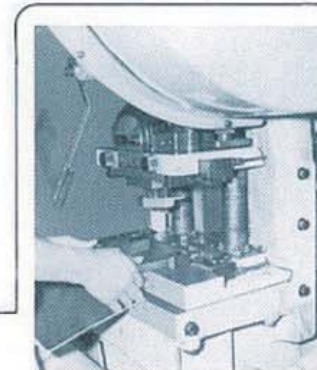


Quick set-up for die setting
Alignment of dies and punches can be done quickly and easily.

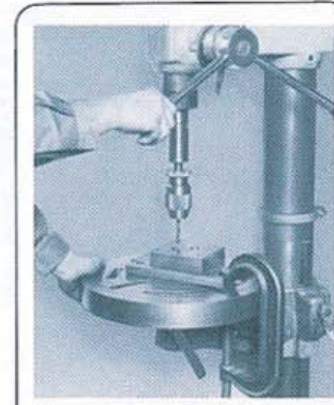
- パンチ側のみドリル、リーマ通し及びダウエルピン打ち
- Drilling, reaming and setting dowel pins on the punch side only.



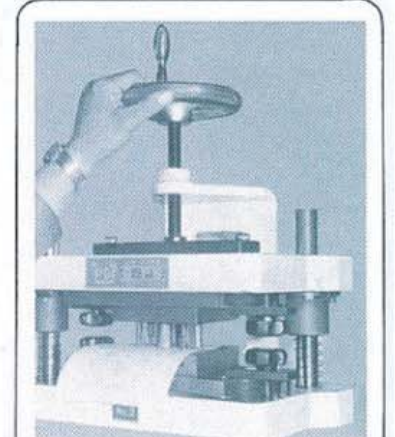
- パンチ側に合わせてダイ側位置決め芯出し
- Locating the die side to match the punch side and centering.



●セッティング ● Tryout



●ダイ側、ドリル、リーマ通し及びダウエルピン打ち ● Drilling, reaming and setting dowel pins on the die.



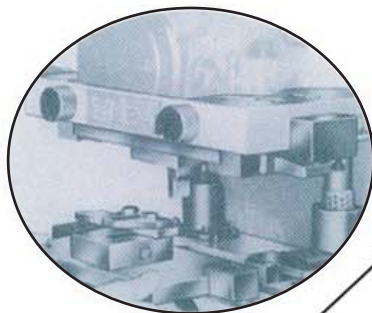
●紙の試抜きスペーサーで確認、ボルト本締め ● After checking with paper tryout tighten up bolts.

An integrated system covering the whole processes from the design and fabrication of dies to their use and management.

標準化で軽量、取換え運搬がらく
Standardized modular parts designs have realized compact and lightweight die part for greater convenience of replacement and transport,

クイック出納と 確実な保管で 最高の管理

Perfect control assuring quick acceptance/delivery and the highly dependable parts strage.

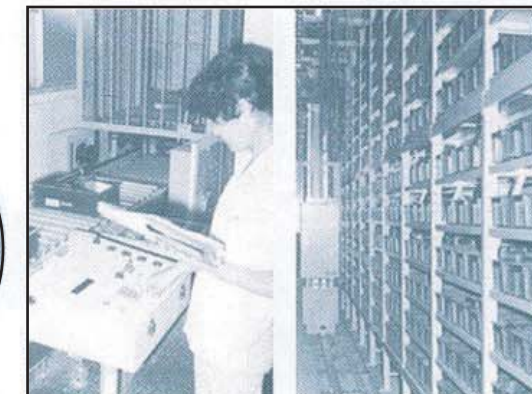


金型完成
Completed die

標準化で軽量、取り換え運搬がらく、標準化で小型化、省スペースで保管がらく
As the merits of the standardization, parts come in lightweight to greatly ease replacement and transport, and their compactness in size contributes to cutting down on the space and labor in storage.



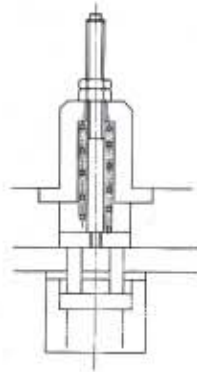
キーを押すだけ、プレスはそのままです
Just press desired keys, and the parts in need is issued and transferred to the point close to the press machine.



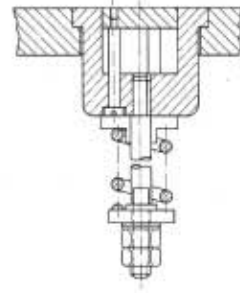
標準化で揃った金型は、自動ラックでクイック出納。探す、運ぶ手数が不要
A complete selection of the dies arranged in order by the standardization are stored neatly in the unattended warehousing racks to assure quick issuance and turning in eliminating the trouble of looking for and carrying them as needed.

Q-308各機能部

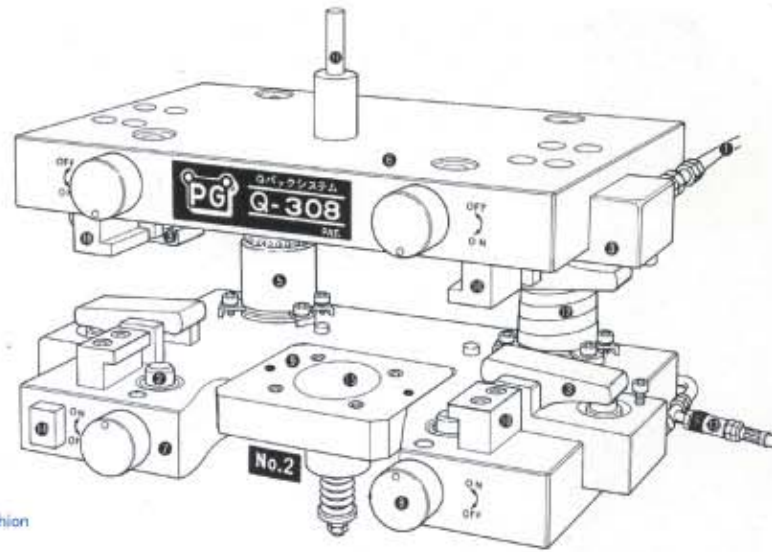
Detail of the Q-308



ノックアウト付シャンクの例
Example of shank with knock-out



スプリングダイクッションの例
Example of spring-loaded die cushion



- 1.油圧ホース
耐圧余裕があり耐久性にすぐれた油圧ホースを採用しております。
- 2.ロケーションピン
<Q-308>の最も重要な部分です。それぞれのロケーションピンとプッシュの嵌合、配置と形状、そしてピッチトレランス、これらはパンチとダイが直接対応して、段取りごとの金型復元の精度を保ち、互換性を保証します。また偏心荷重による動的精度なども含め豊富な実績に基づいたデータにより、高精度に念入りの管理のもとにつくられています。
- 3.油圧クランプ
耐震性にすぐれ、安全面にも充分に配慮された油圧クランプ。金型締付作業はムラなく強力に誰でもワンタッチでできます。
- 4.ボールスライド
- 5.ガイドブッシュ
- 6.パンチホルダ
- 7.ダイホルダ
- 8.ロケーションノブ
ノブを軽くまわすとロケーションピンが上下します。なおピンの挿入確認とインターロック装置(オプション)があります。
- 9.インサートプレート
下ホルダの抜き落とし穴にインサートプレートを使用し、曲げ成型加工などの集中荷重に対してベースプレートをサポートします。またこの穴には着脱自在なダイクッションが装備できます。特に高圧で圧力調整が容易な<PGダイパワー>の使用をおすすめいたします。
- 10.ベースプレートガイド
このガイドにすべり込ませることにより、金型のホルダへの挿入と位置ぎめが、やさしく確実に行われます。
- 11.ノックアウト装置(オプション)
ラムからのノックアウトピンや圧力自在の<PGダイパワー>などが簡単に取付けられます。
- 12.ポストカバー(オプション)
作業者の安全面とガイドポストへのゴミ、スクラップの付着を防ぐのに役立ちます。
- 13.油圧カバー(オプション)
ワンタッチで油圧源とQ-308を分離できます。
- 14.ロケーションピン確認装置(オプション)
ロケーションピンの位置確認を光電管、またはリミットスイッチにより行います。
- 15.ダイクッション(オプション)
着脱自在のパネ式、ゴム式クッション、また圧力調整の速い油圧ダイクッション<PGダイパワー>などが取付けられます。

- 1.Oil-hydraulic hose
An oil-hydraulic hose of sufficient pressure resisting property and high wear-resistance is used.
- 2.Locator pin
One of the most critical parts in the Q-308 Fit-up of each locator pin in each of the associated bushings, layout and configuration and tolerance for the pitch of these locator pins are so designed that each of the matching punches and dies can be snugly mated to ensure accuracy in restoring die to their initial conditions at the time of each set-up, thus assuring sufficient interchangeability. These locator pins are manufactured to the high precision under our thoroughgoing control system, based on the rich resources of our job-proven technical data including those on the dynamic accuracies that may be affected by the application of off-centered loads.
- 3.Hydraulic clamp
The hydraulic clamp of excellent vibration resistance, designed with adequate consideration on safety. Die clamping operation can be accomplished to the required clamping force by a simple operation without any expert skill.
- 4.Ball slide
- 5.Guide bush
- 6.Punch holder
- 7.Die holder
- 8.Locating knob
The locator pin can be moved up down by turning knob gently. An interlock device (optional item) is available, which is used for confirmation insertion of the locator pin.
- 9.Insert plate
An insert plate is fit in the blank-through opening in the lower holder to support the base plate against the concentrated load that may occur in the case of bending process, for instance. This opening is made to accommodate also the detachable type die cushion. For this purpose, use of our PG Die power is recommended, which features its exceptionally high pressure available and the simple pressure adjustment function.
- 10.Base plate guide
Sure insertion of the die into the holder and locating can be accomplished easily by sliding it along these guides.
- 11.Knock-out device (optional item)
A knock-out pin interlocked with the ram or the pressure-adjustable die cushion "PG Die Power" can be mounted here without any difficulty.
- 12.Post cover (optional items)
Serves to ensure safety for the operator and to prevent deposition of dirt, metal chips or other foreign matters in the guide post.
- 13.Hydraulic coupler (optional item)
Allows separation of the Q-308 from the oil hydraulic power source in a simple "one-push/pull" operation.
- 14.Locator pin check device (optional item)
Confirms the location of the locator pins with the photoelectric sensor or the limit switch incorporated.
- 15.Die cushion (optional item)
A detachable spring- or rubber-loaded cushion or PG Die Power, a hydraulically-actuated die cushion of quick pressure adjustment, can be mounted here.

PG'S Advanced Design Concept.

To help fabricate dies more quickly at less, to assist in quicker press working with easier setup requirements, ... This is the policy of Press Giken, Inc.

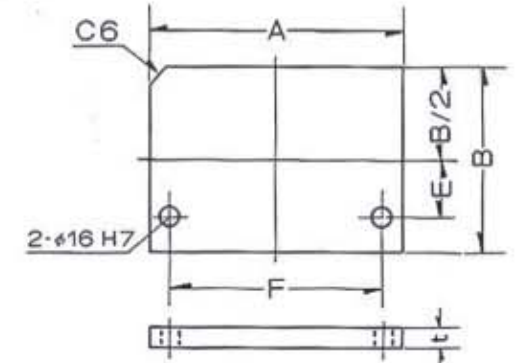
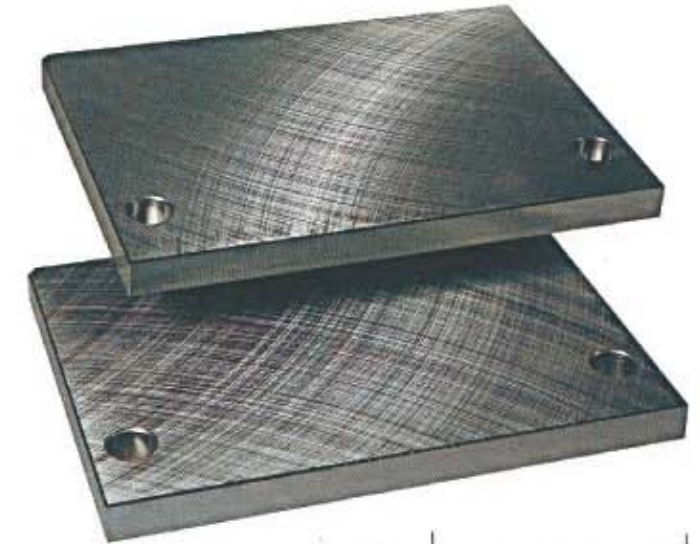
This system covers the whole process from designing and fabrication of dies to the manufacture and completion of the press machine parts. In this way, it can bring about a number of advantageous effects on every facet of production and management in die-making plants and press working plants. One of such effects is that can be expected of the "standardization".

Although its needs as one of the absolute necessity, there are many factors obstructing smooth implementation of such "standardization" in actual operations, because of the different work conditions intermingled in actual work, some of them are of such natures to readily accommodate the requirement but other are. By introducing our "Q-308" system, however, the objective of "standardization" can be accelerated as a natural consequence of the things without your being aware of it.



BASE PLATE

型式 TYPE	A	B	E	F	t
No.1	150	100	20	120	16
No.2	210	150	45	180	16
No.3	250	210	75	220	22
No.4	350	300	120	320	22



HYDRAULIC POWER SOURCE

信頼のおける油圧締め付け

バルブのレバーを倒すと安定した油圧力で瞬時にクランプが作動します。バネのようにすぐに劣化して締め付け力が低下し、事故を起こすようなことはありません。

Dependable hydraulic clamping system.

By pushing the valve lever, the stable hydraulic power put the clamping mechanism into motion instantly. Unlike the spring system, there is no possibility of lowering the clamping force in a short time resulting in an accident.

