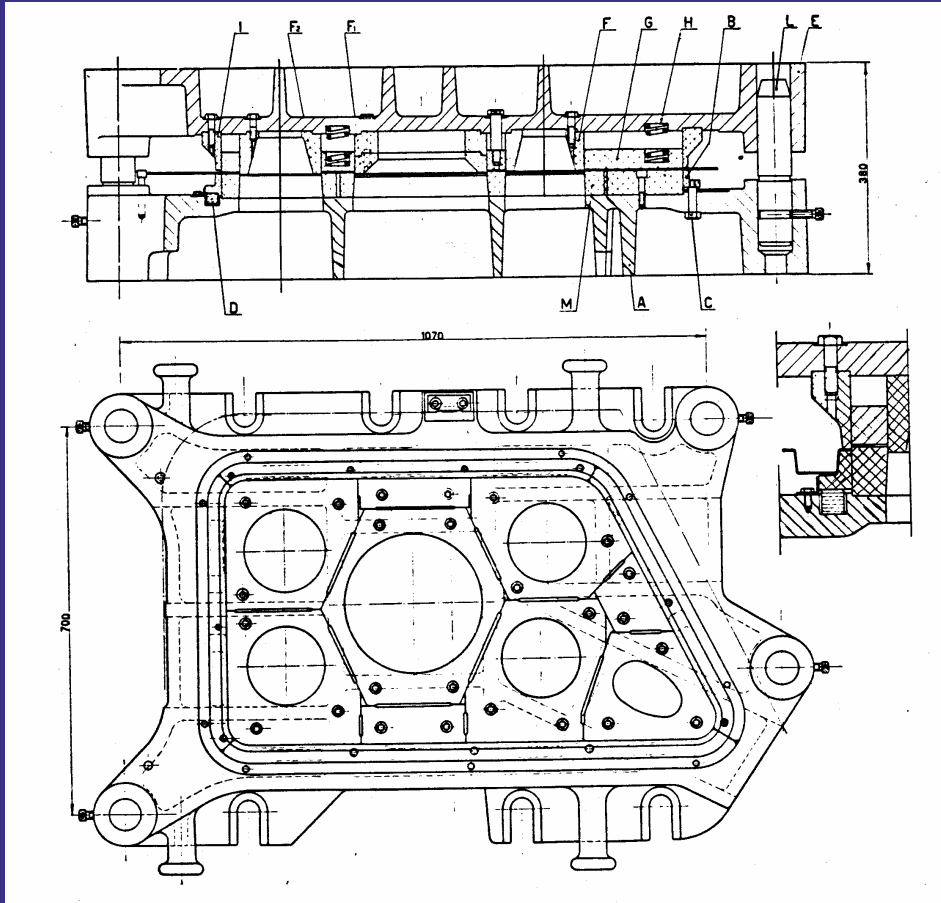


# Sac İşleme Teknolojisinde KALIP ÇİZİM ve TASARIM ÖRNEKLERİ (II)

88 çeşit parçaya ait kalıp örnekleri



COŞKUN KIRMIZI

# Sac İşleme Teknolojisinde KALIP ÇİZİM ve TASARIM ÖRNEKLERİ (II)

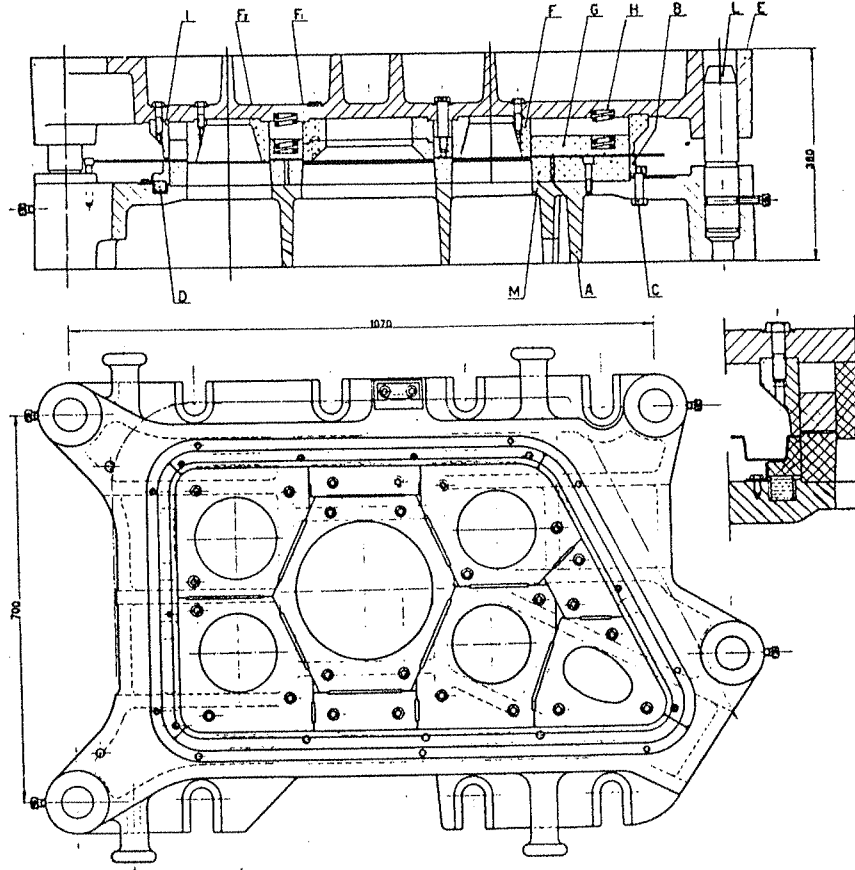
Konusu;

Bu kitap endüstride çeşitli fabrika ve işyerlerinde uygulanmış 88 parçaya ait kalıp örneklerini ihtiva eder. İyi bir teknik resim bilgisine sahip her meraklı kişiye yön verecektir.

Coşkun KIRMIZI

# Sac İşleme Teknolojisinde KALIP ÇİZİM ve TASARIM ÖRNEKLERİ (II)

88 çeşit parçaya ait kalıp örnekleri



COŞKUN KIRMIZI



# Sac İşleme Teknolojisinde KALIP ÇİZİM ve TASARIM ÖRNEKLERİ (II)

Konusu;

Bu kitap endüstride çeşitli fabrika ve işyerlerinde uygulanmış 88 parçaya ait kalıp örneklerini ihtiva eder. İyi bir teknik resim bilgisine sahip her meraklı kişiye yön verecektir.

Coşkun KIRMIZI



## ÖNSÖZ

Endüstride geniş bir uygulama alanı olan kalıpçılığın ülkemizde de önemi anlaşılmış; bu konuda yapılan çalışmalar belirli bir düzeye erişmiştir. Daha önce yaptığım çalışmalarda basılan kitaplarımın eksikliğini tamamlayan, ayrıca şimdiye kadar yayınlanan eserler arasında yer verilmemiş olan, çizim örneklerini daha geniş bölümlerde toplayan bu eser Türkiye'de ilk defa teorik ve pratik çalışmaları fevkalade destekliyecek bir yönde olacaktır.

Bu kitap genellikle temel kalıpçılık bilgilerini edinmiş her seviyedeki teknik elemana hitap eden bir eser olup esas amacı; ister öğrenci ister imalatçı veya konstrüktör ressam olsun çizim örnekleri ile düşünce ve kabiliyeti artırıp kalıp tasarımı ve imalatta karşılaşılabilecekleri problemlere çözüm getirecektir.

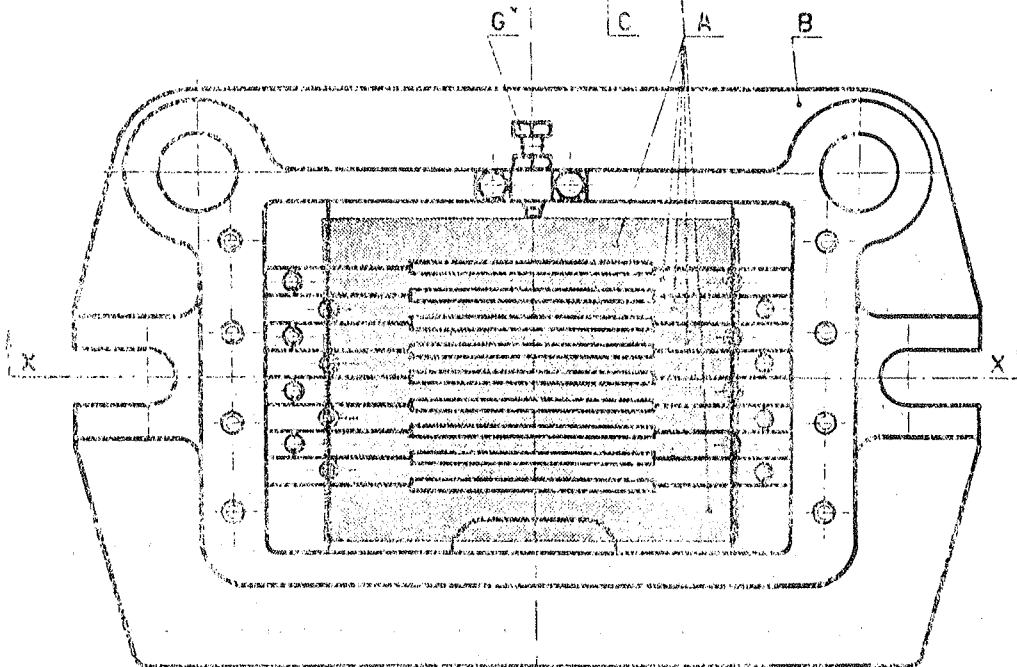
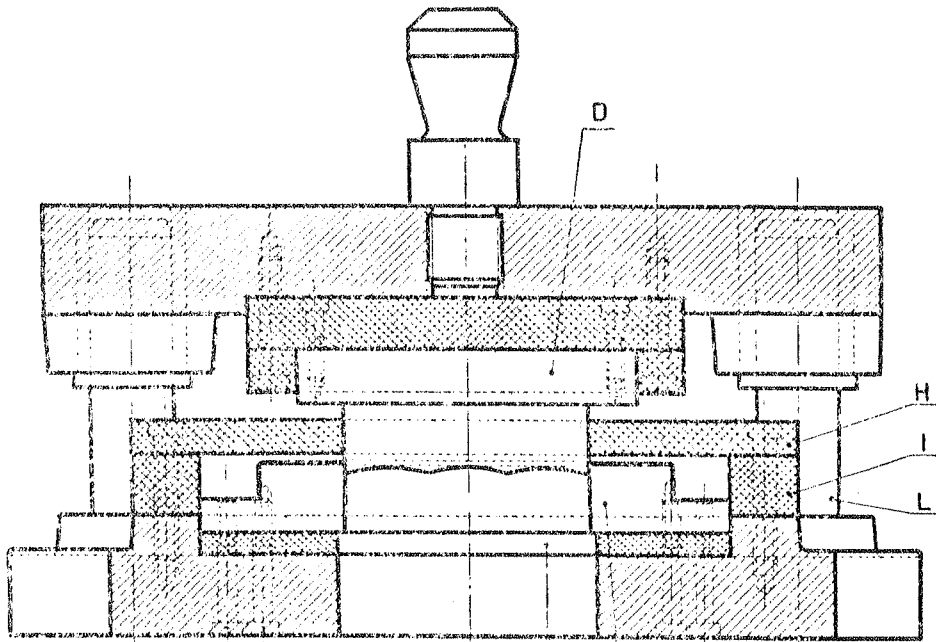
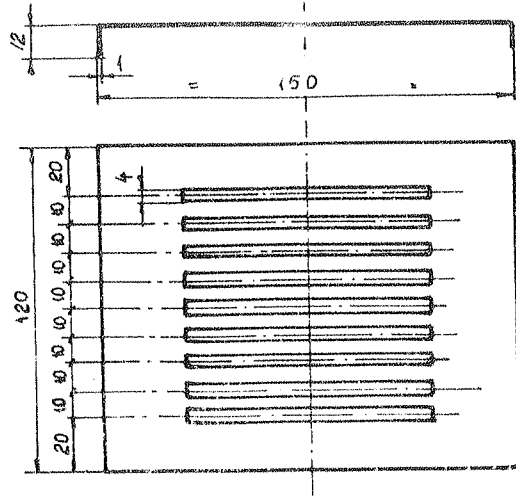
Sağlıyacağı fayda emeklerimin karşılığı olarak beni mutlu edip sevindirecektir.

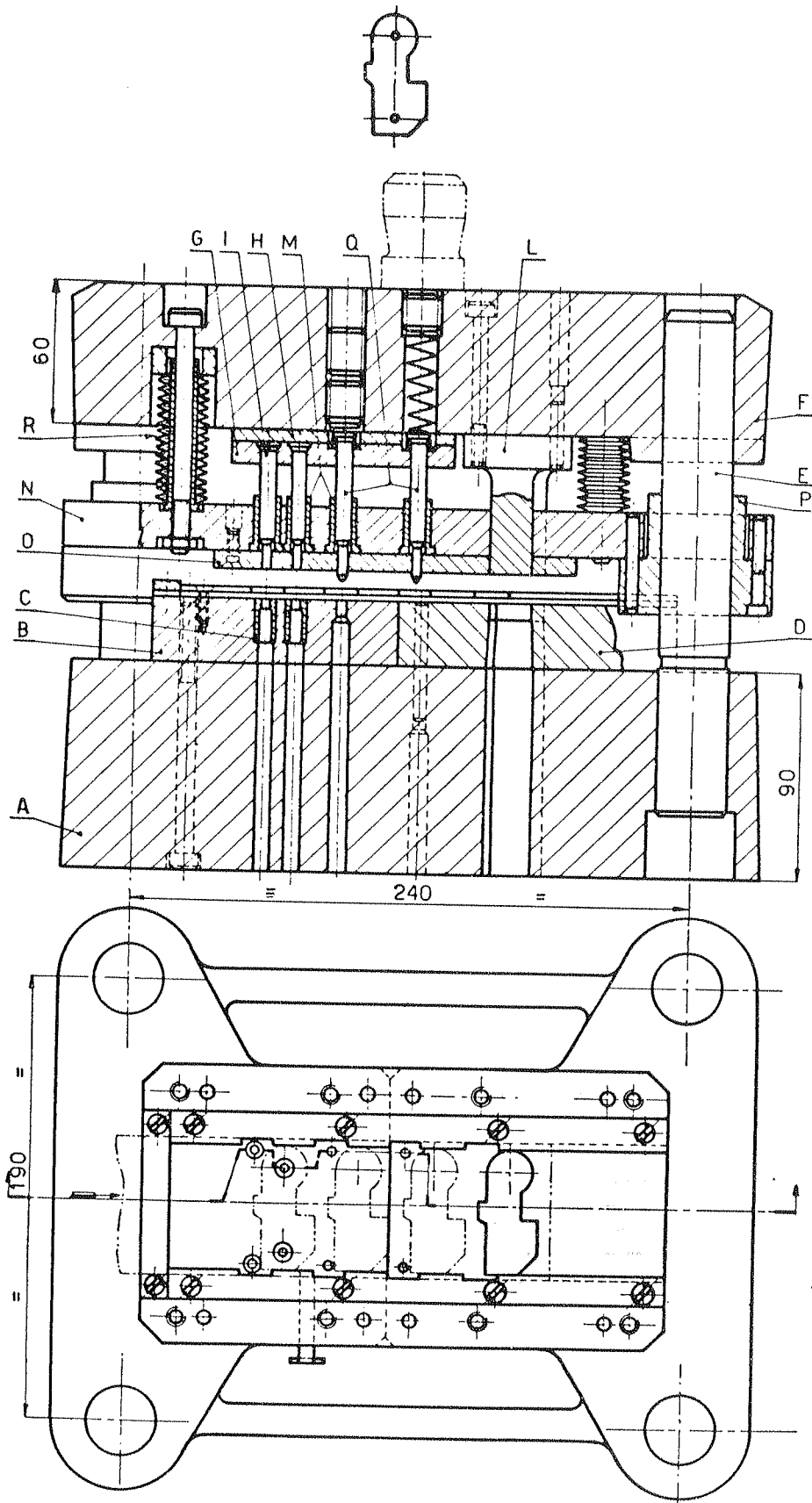
Coşkun KIRMIZI

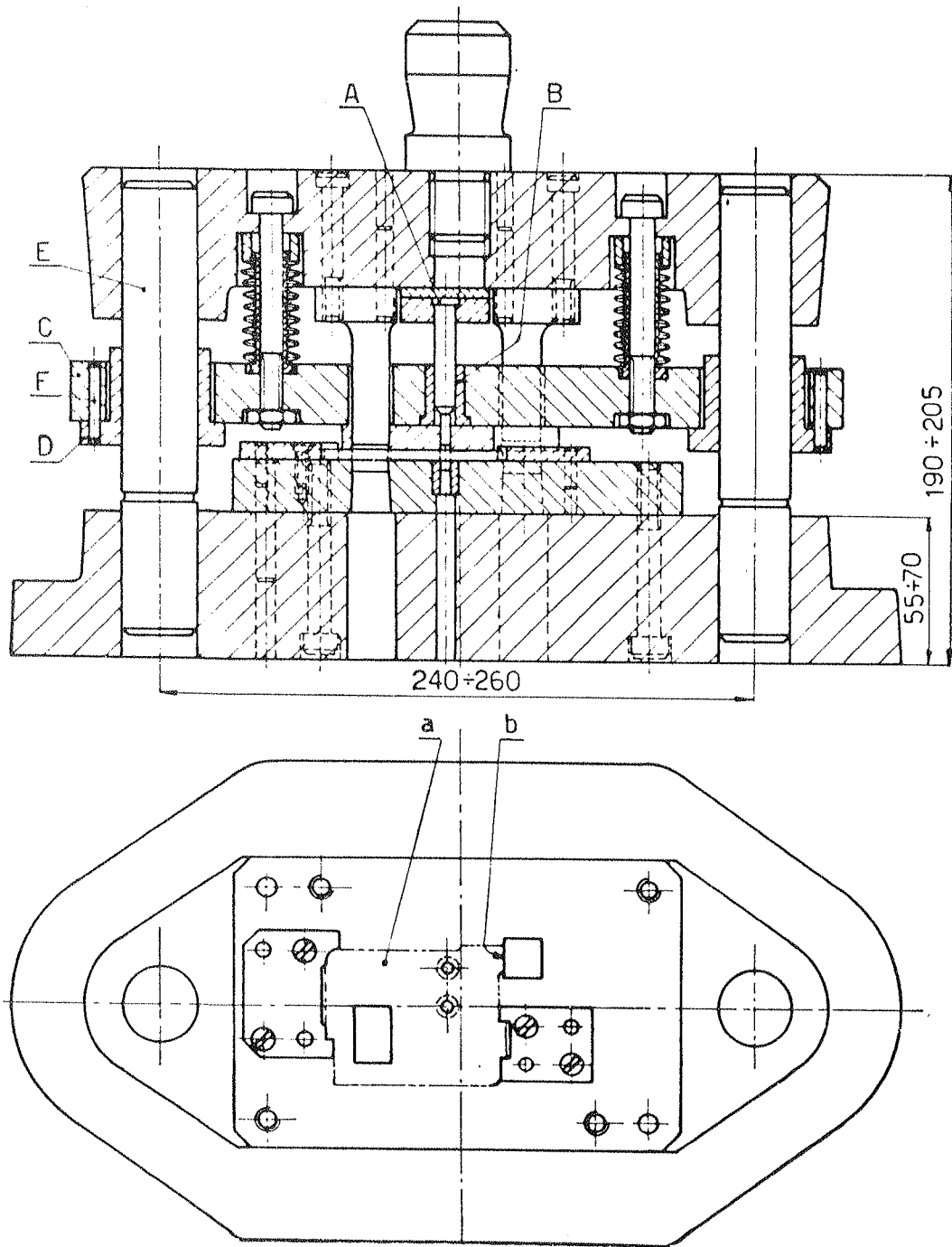


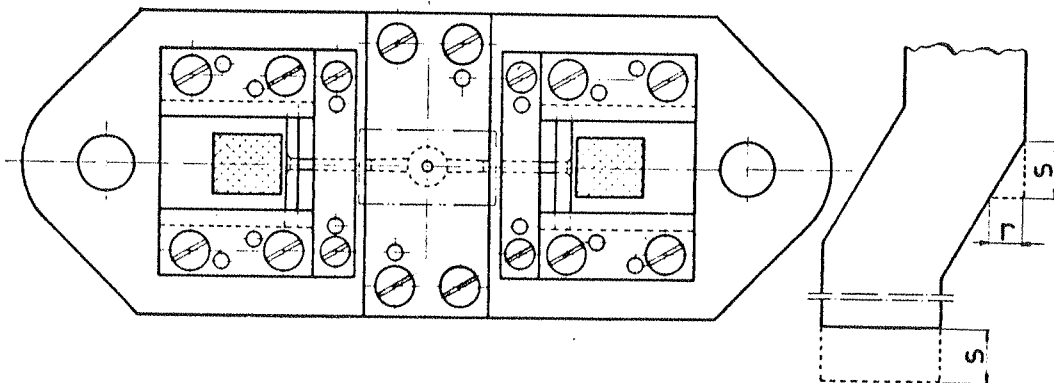
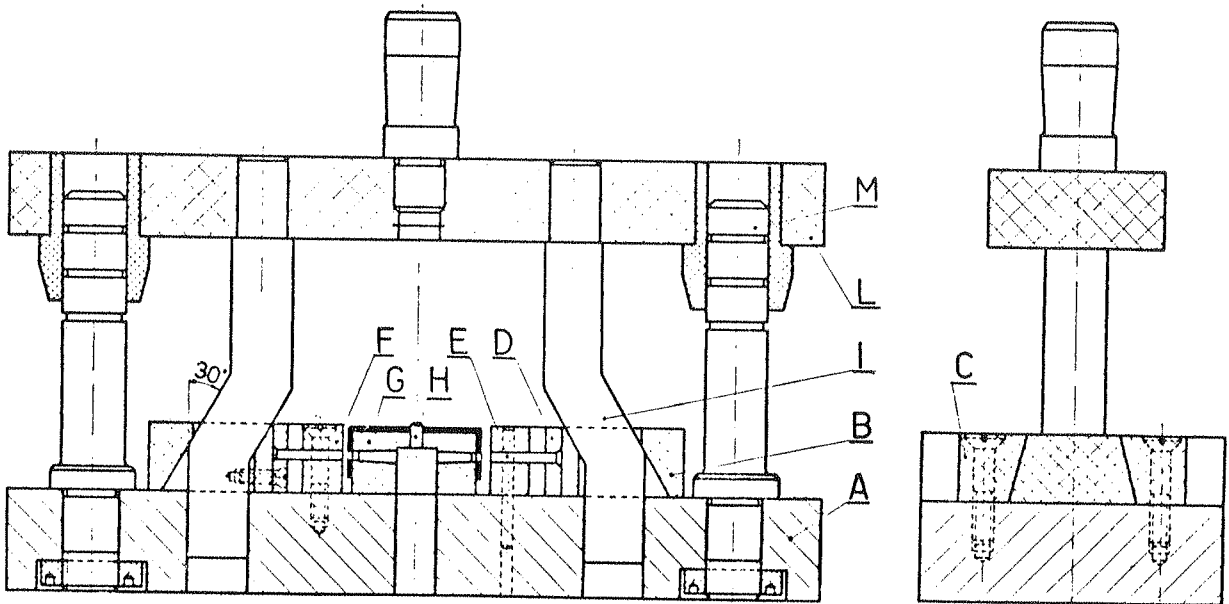
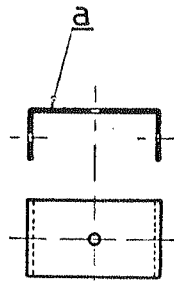


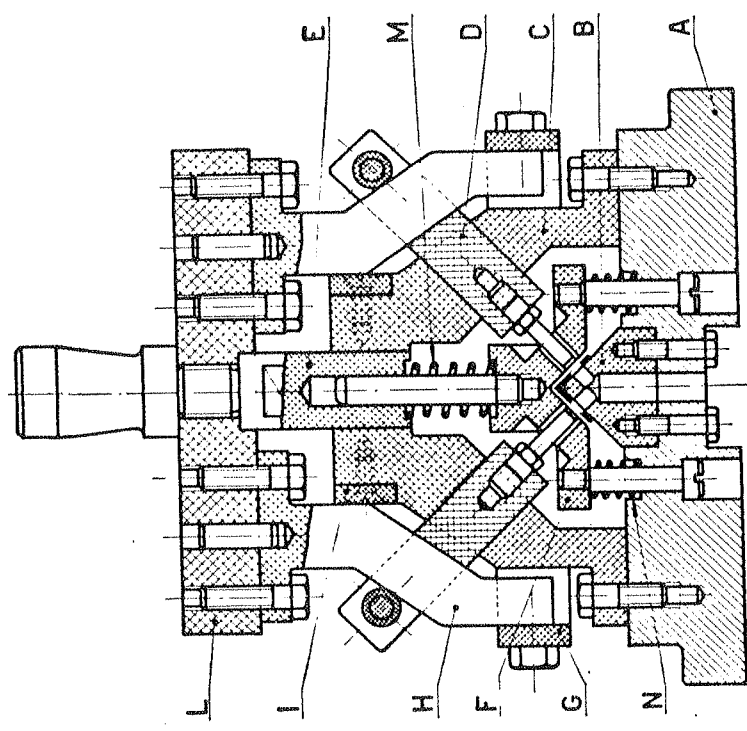
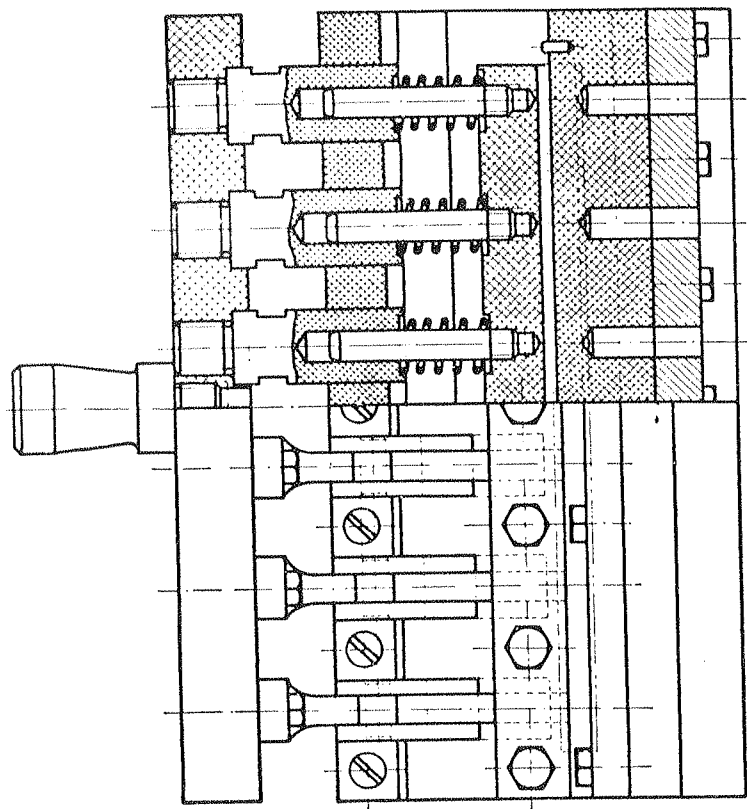
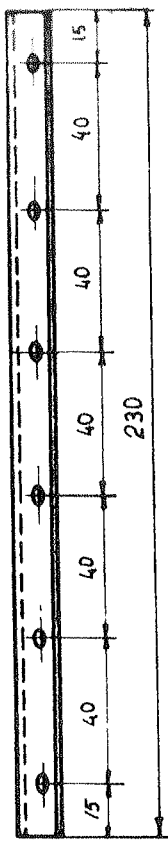
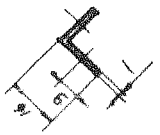
**KESME VE DELME KALIPLARINA AIT  
ÖRNEKLER**

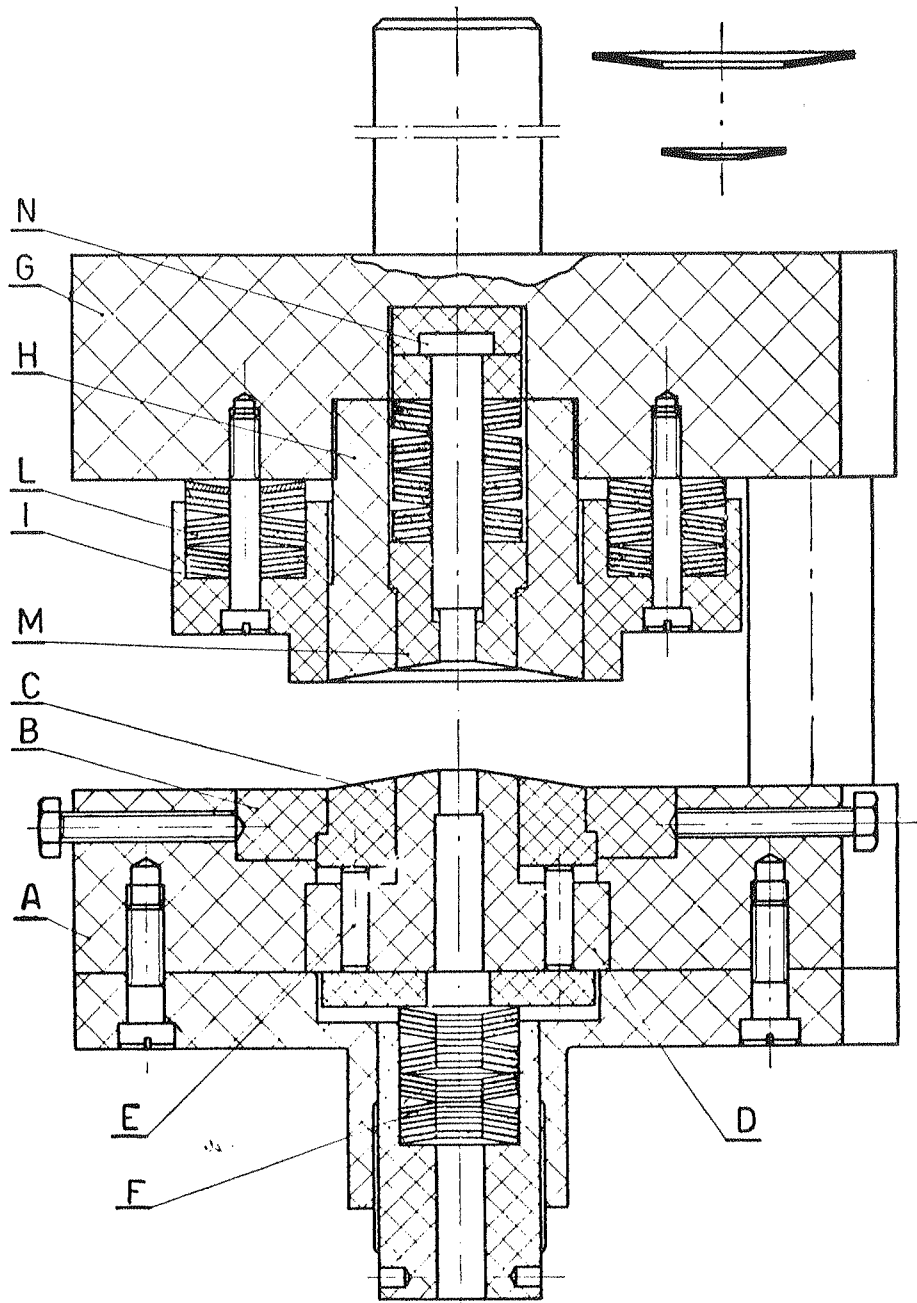


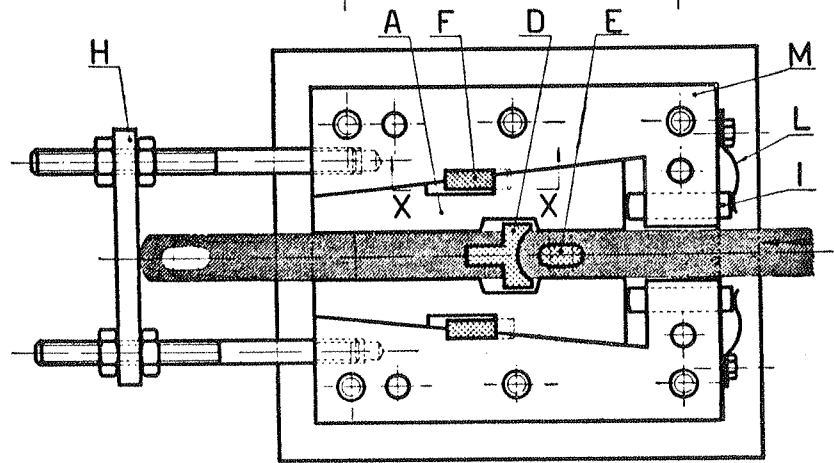
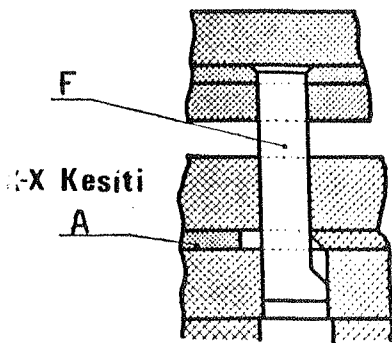
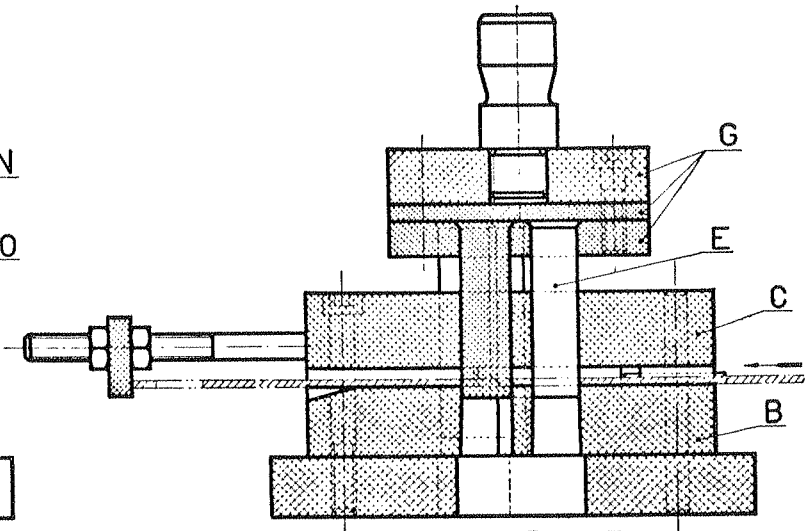
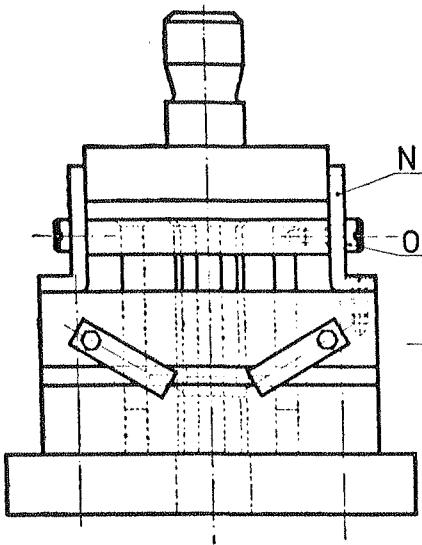
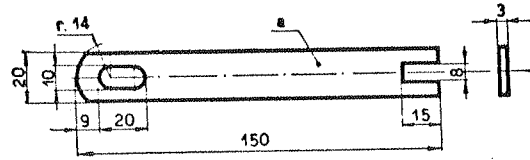




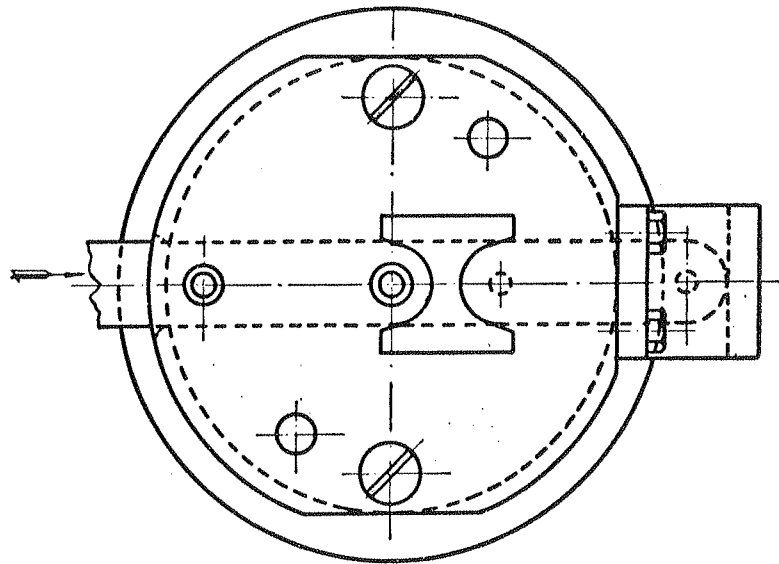
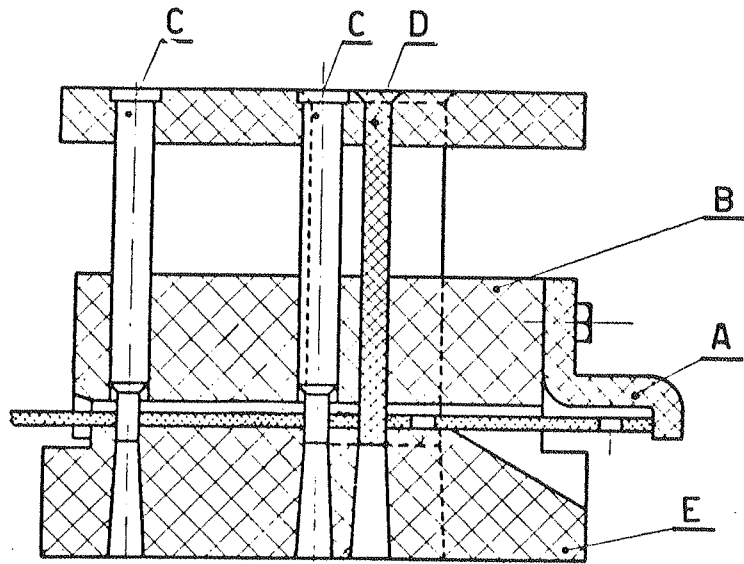
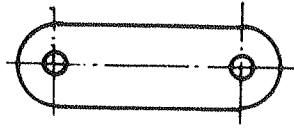


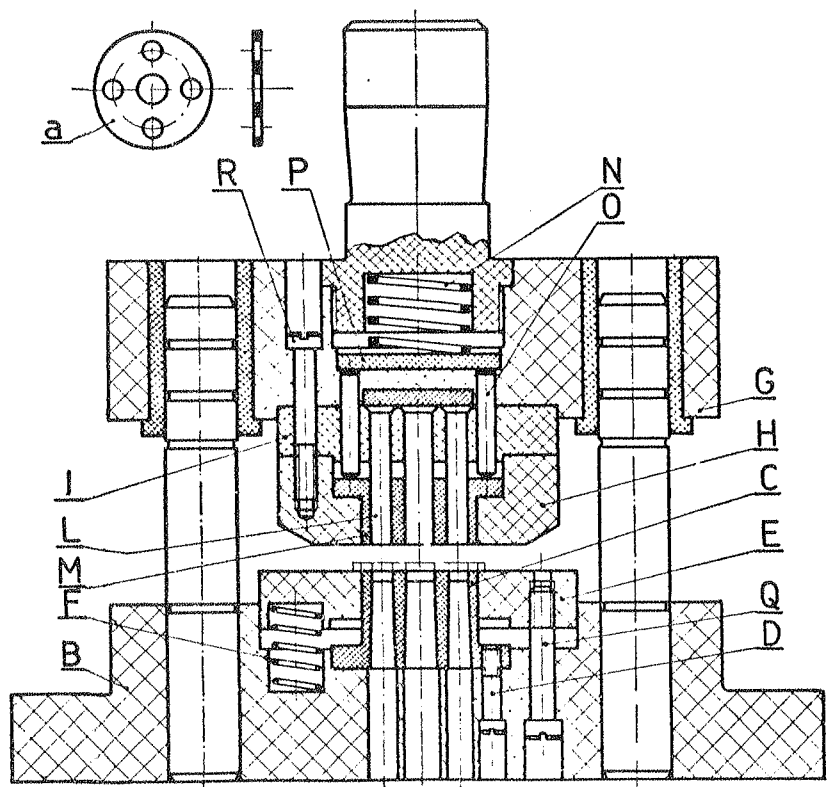
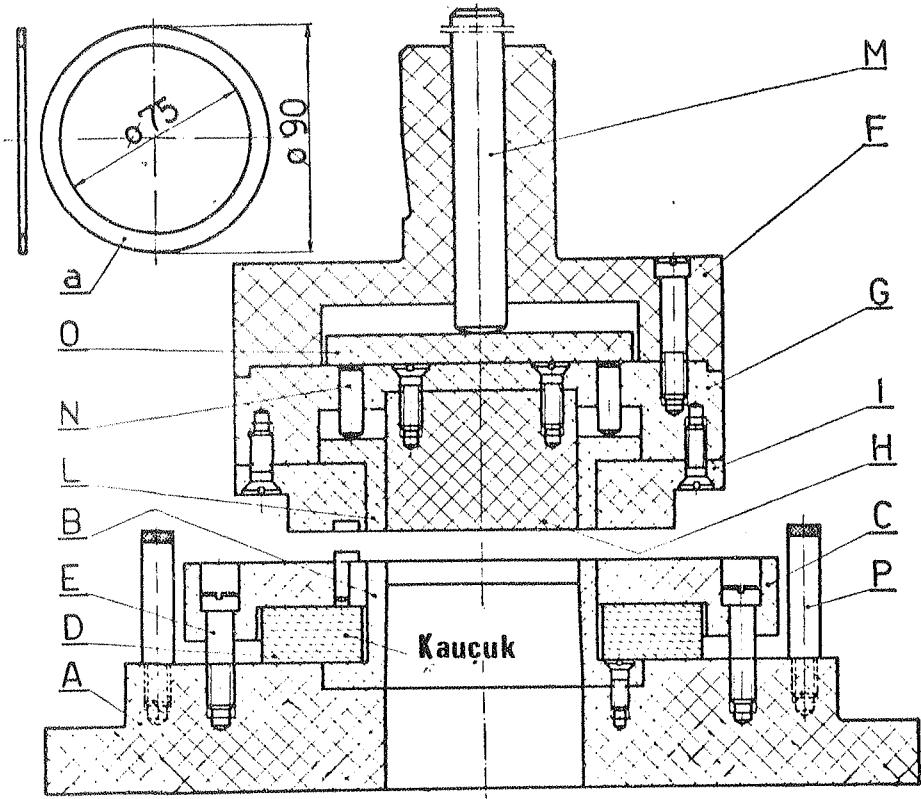


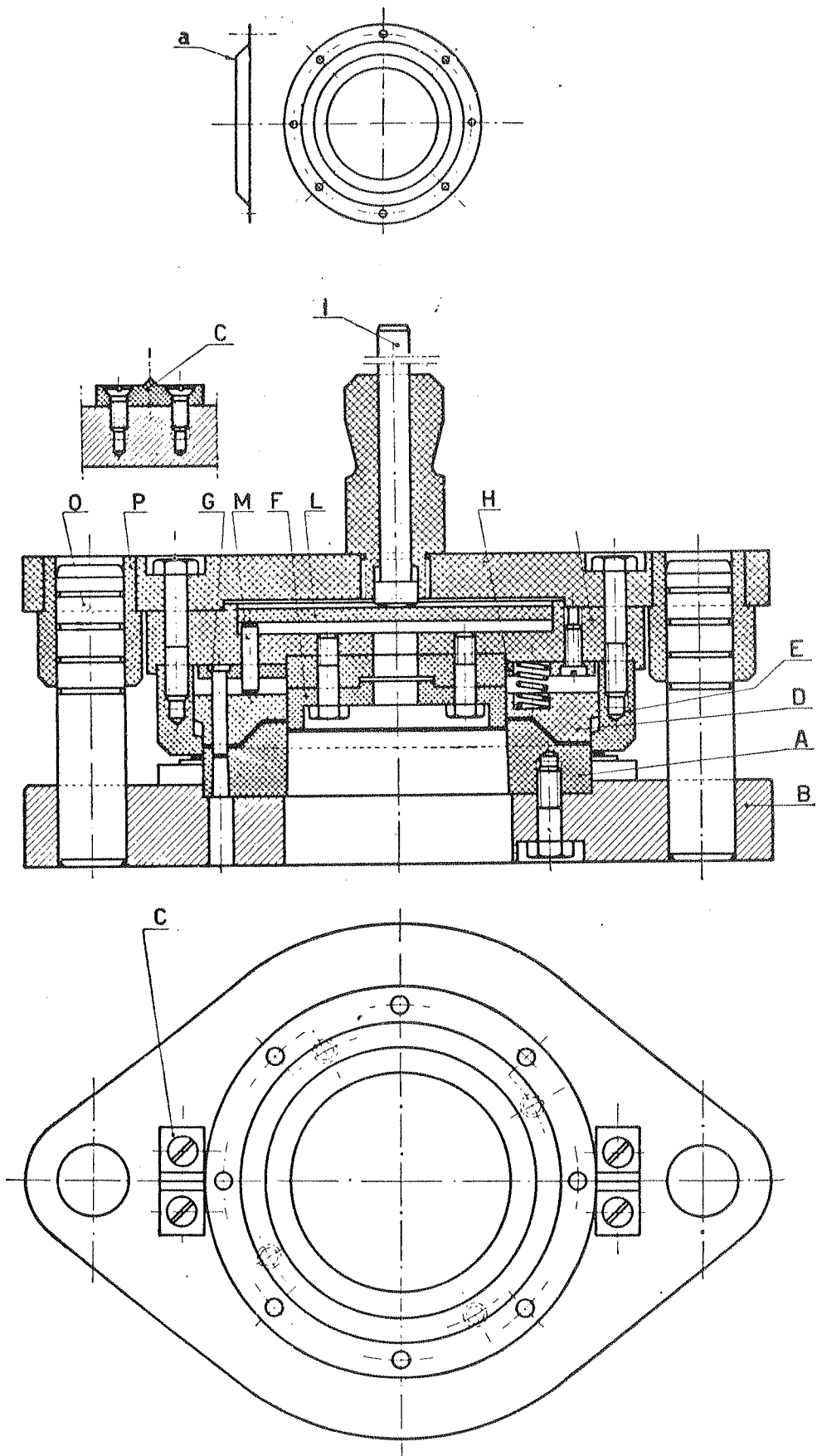


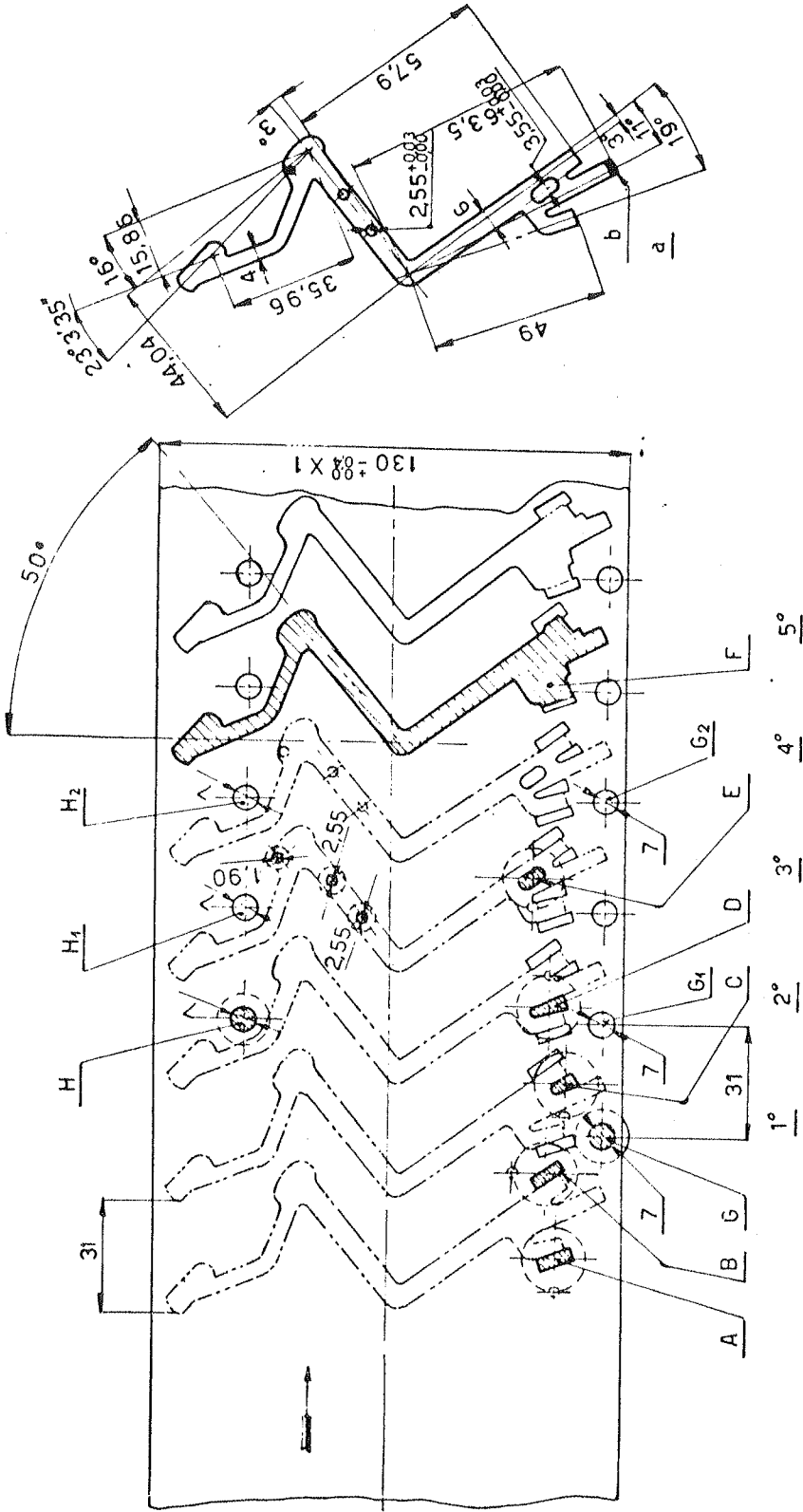




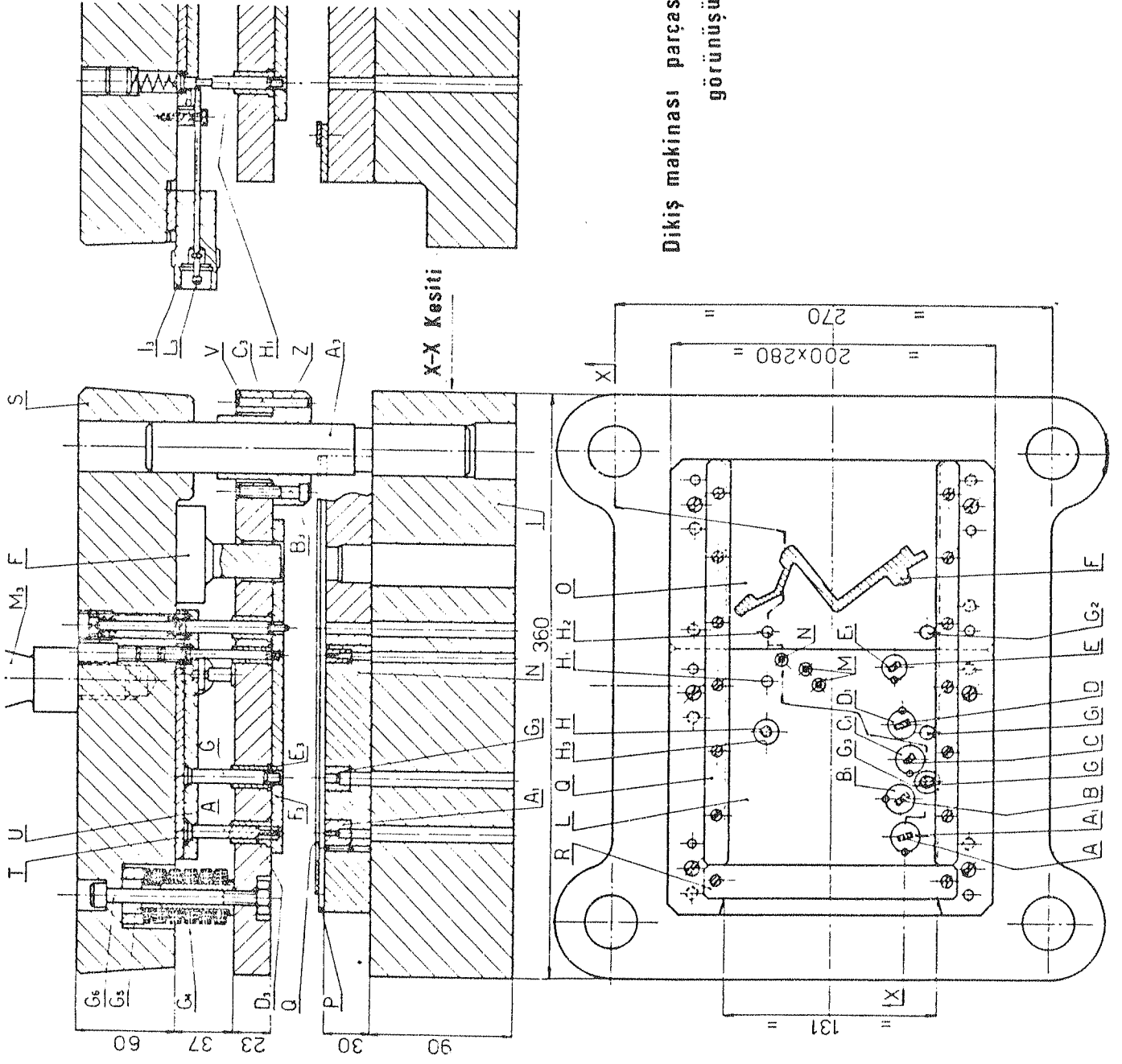




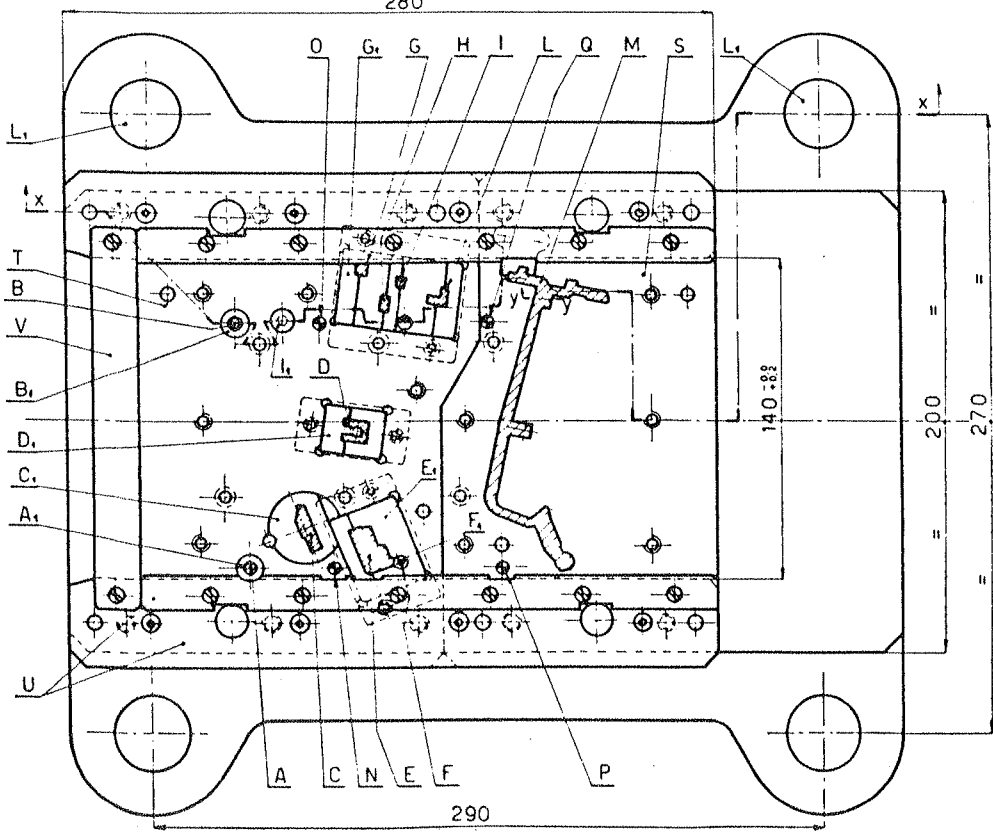
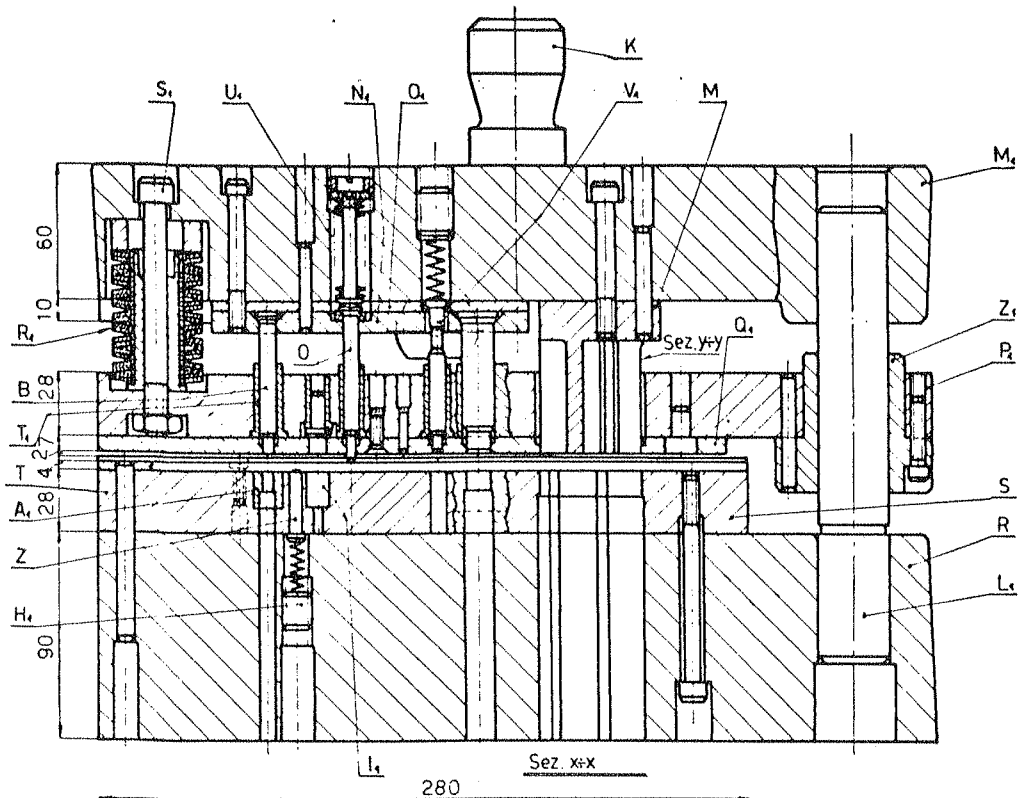


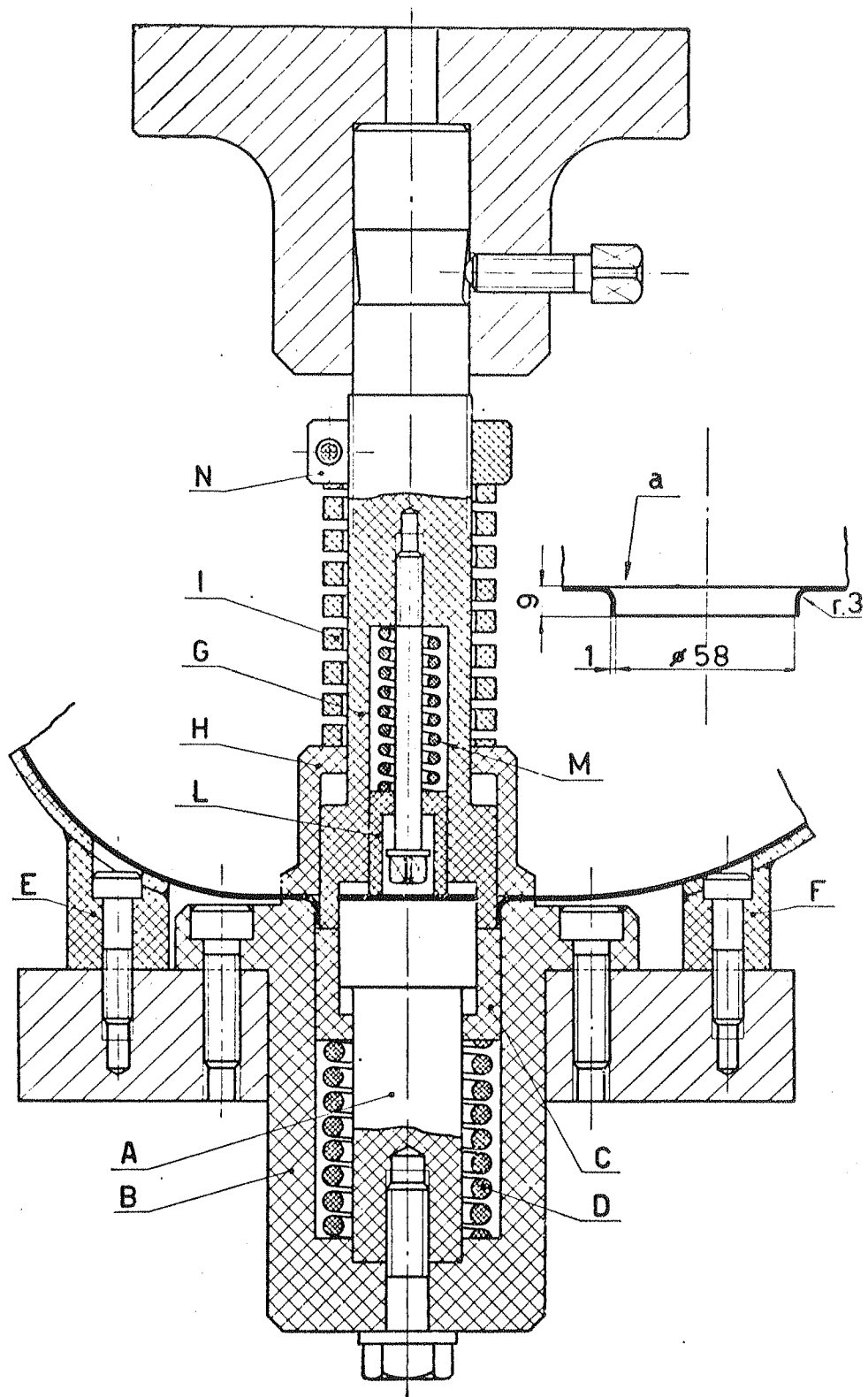


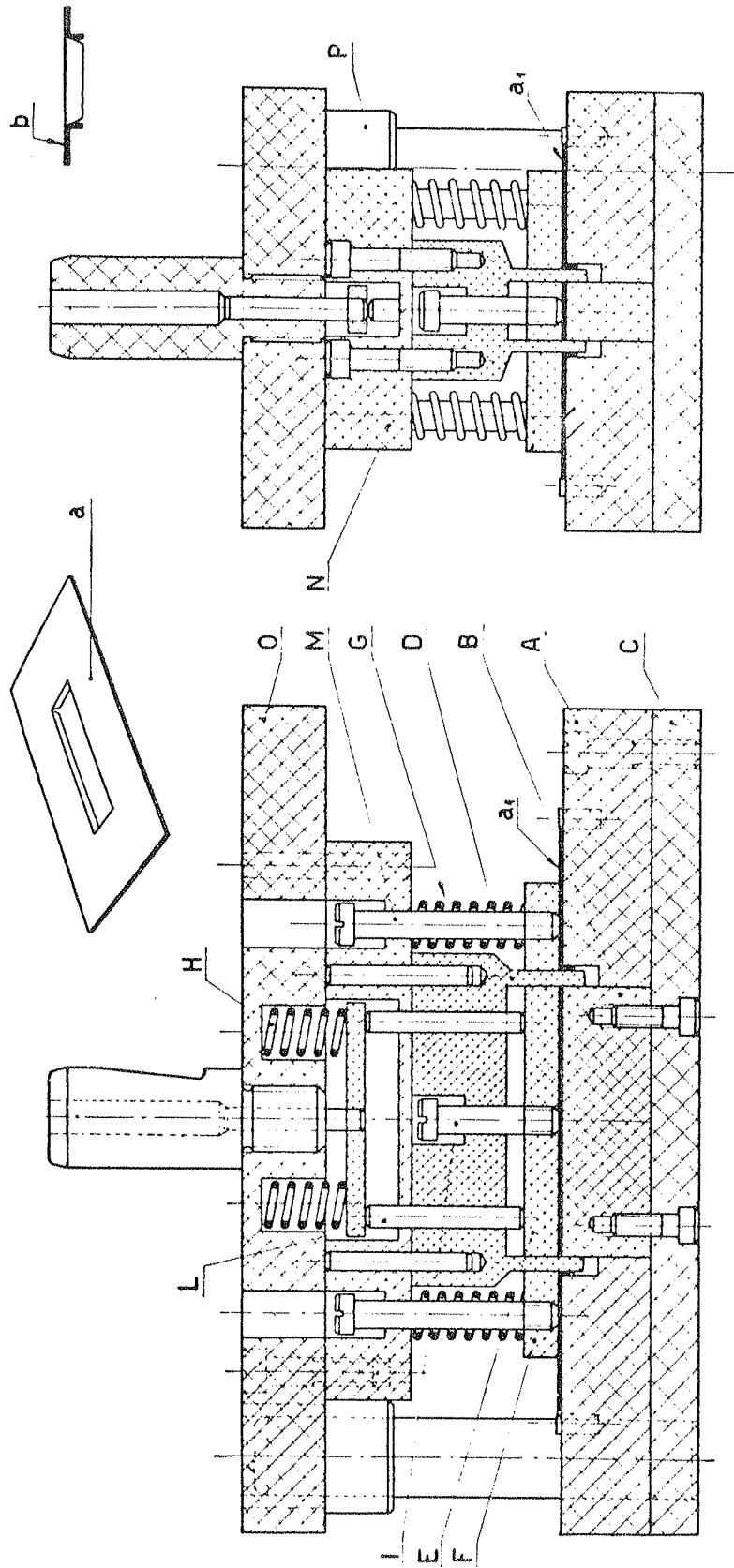
Dikiş makinası parçasının 5 kademede imâinin şerit üzerinde gösterilişi



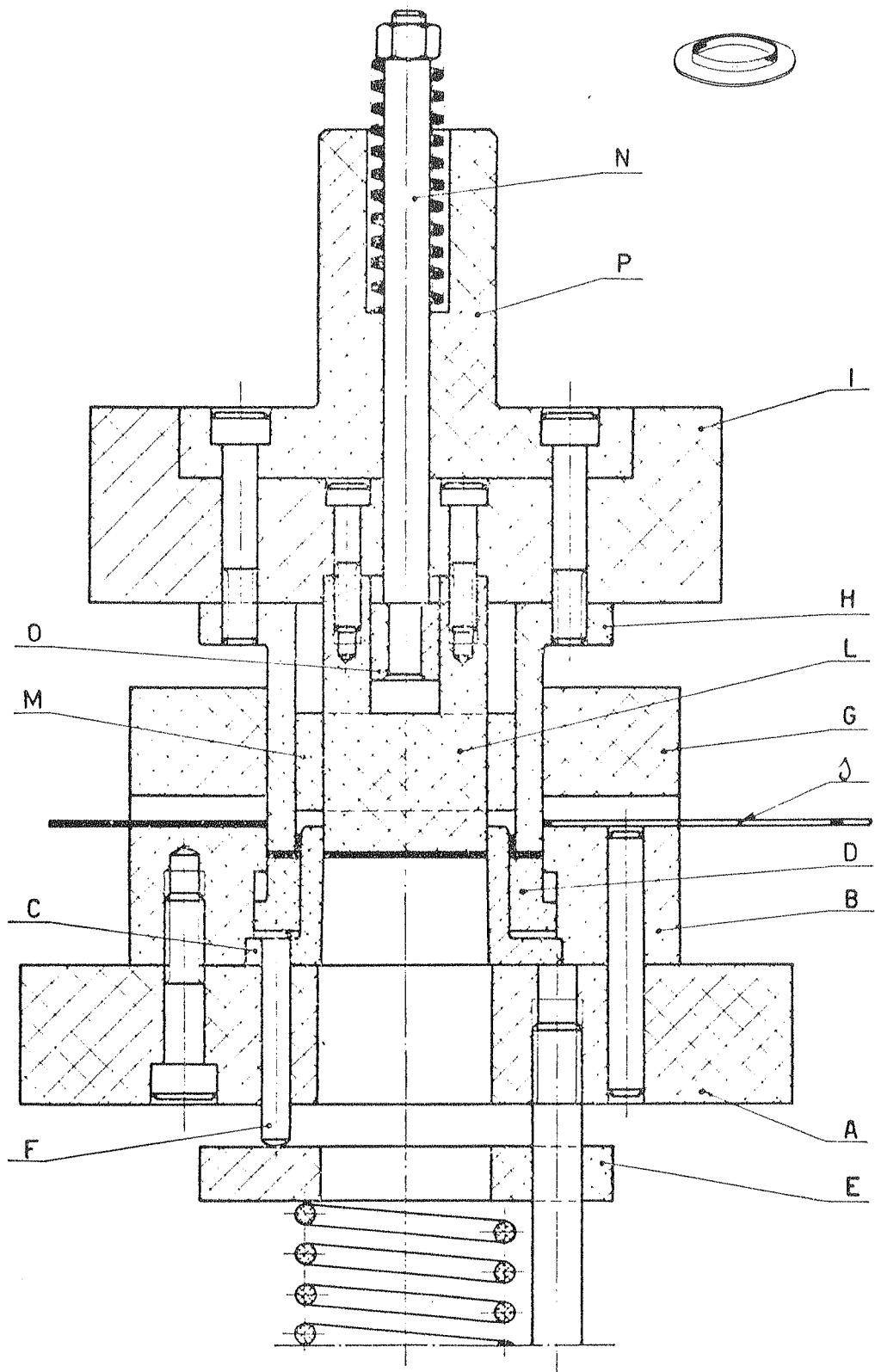
Dikiş makinası parçasına ait kalıbın görünüşü

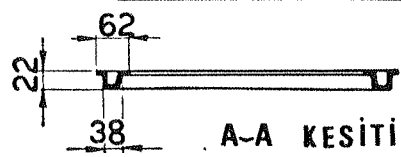
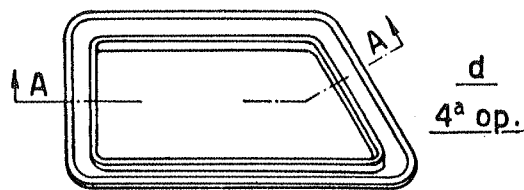
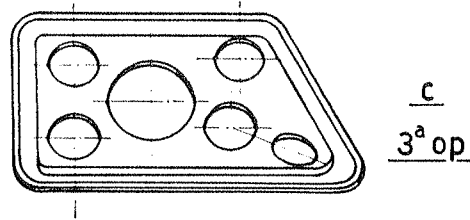
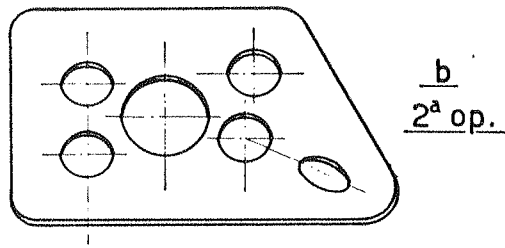
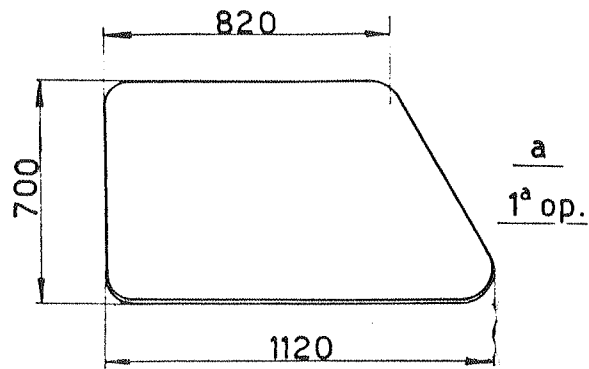


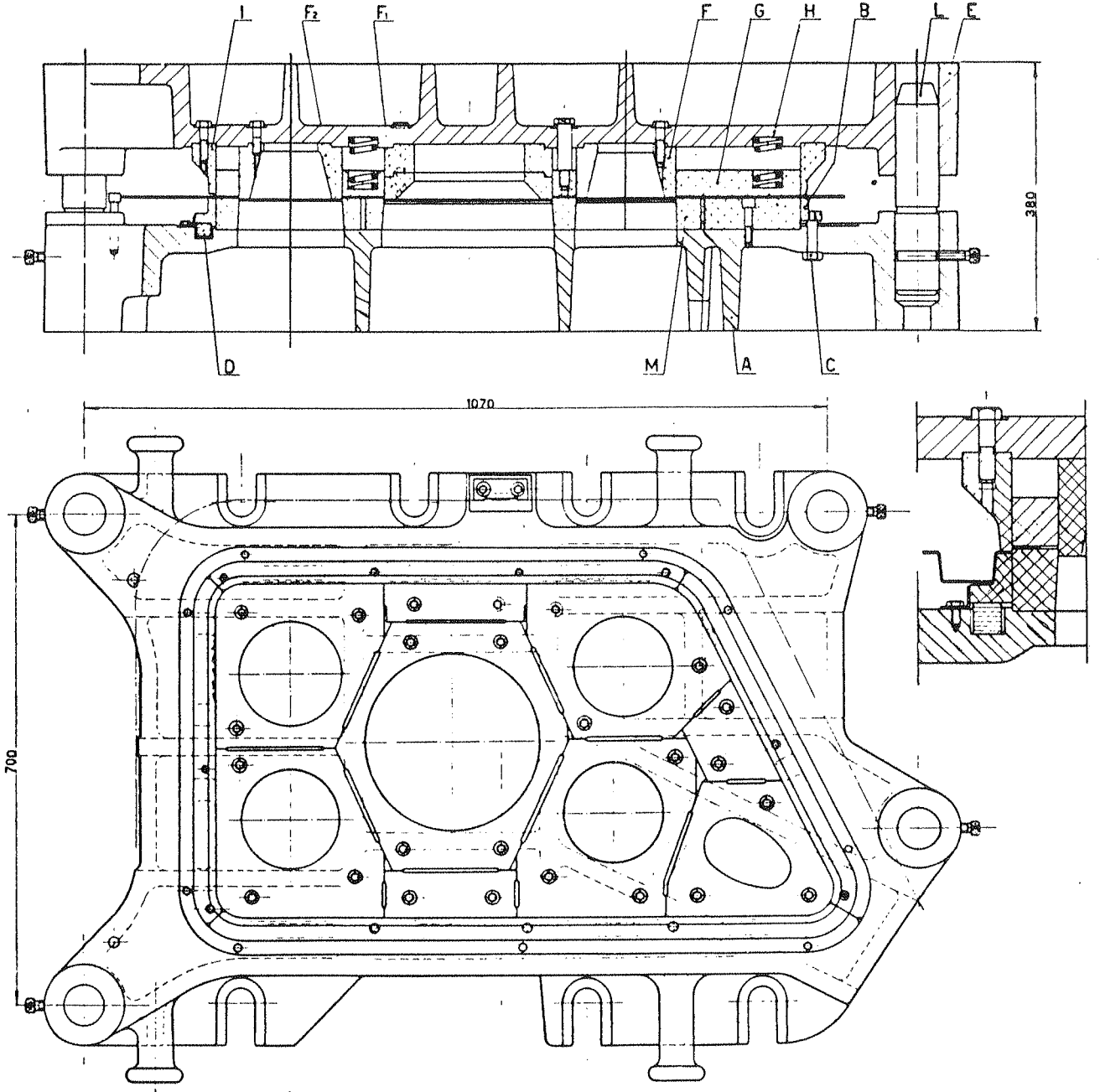




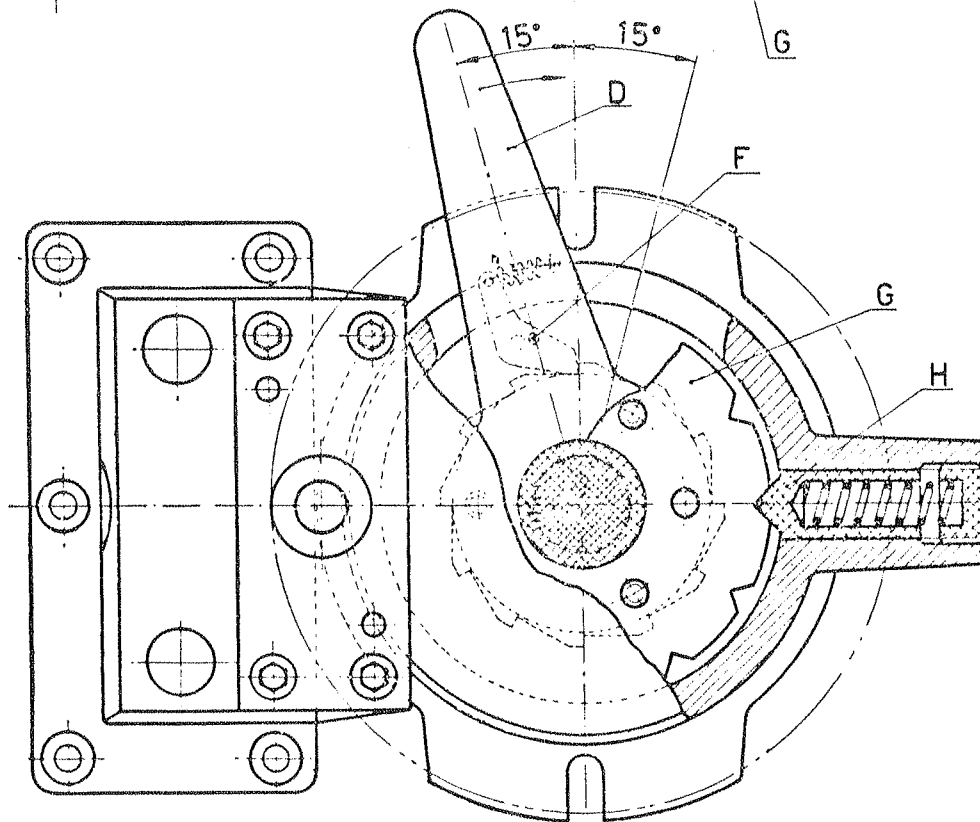
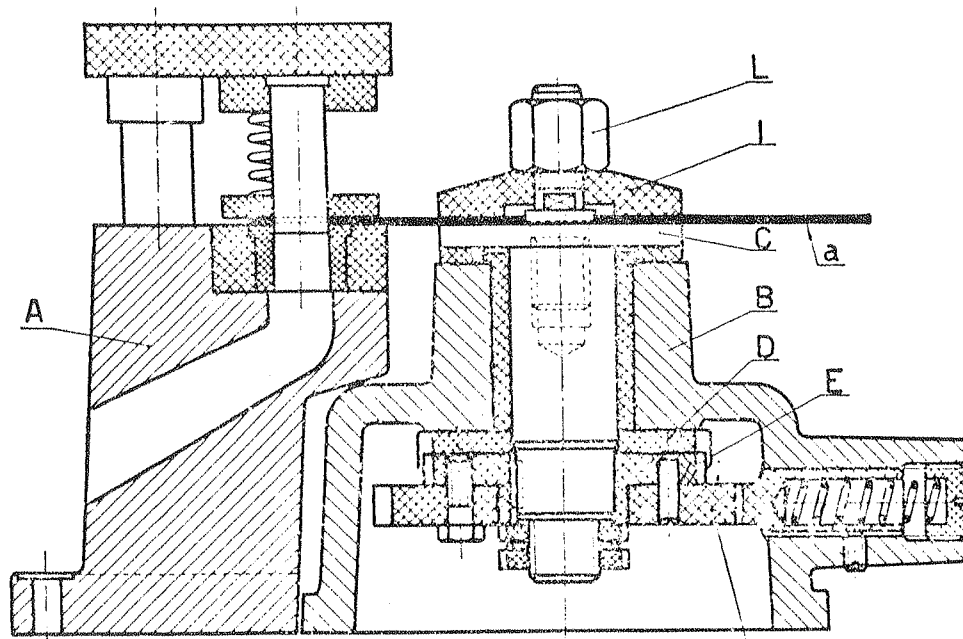


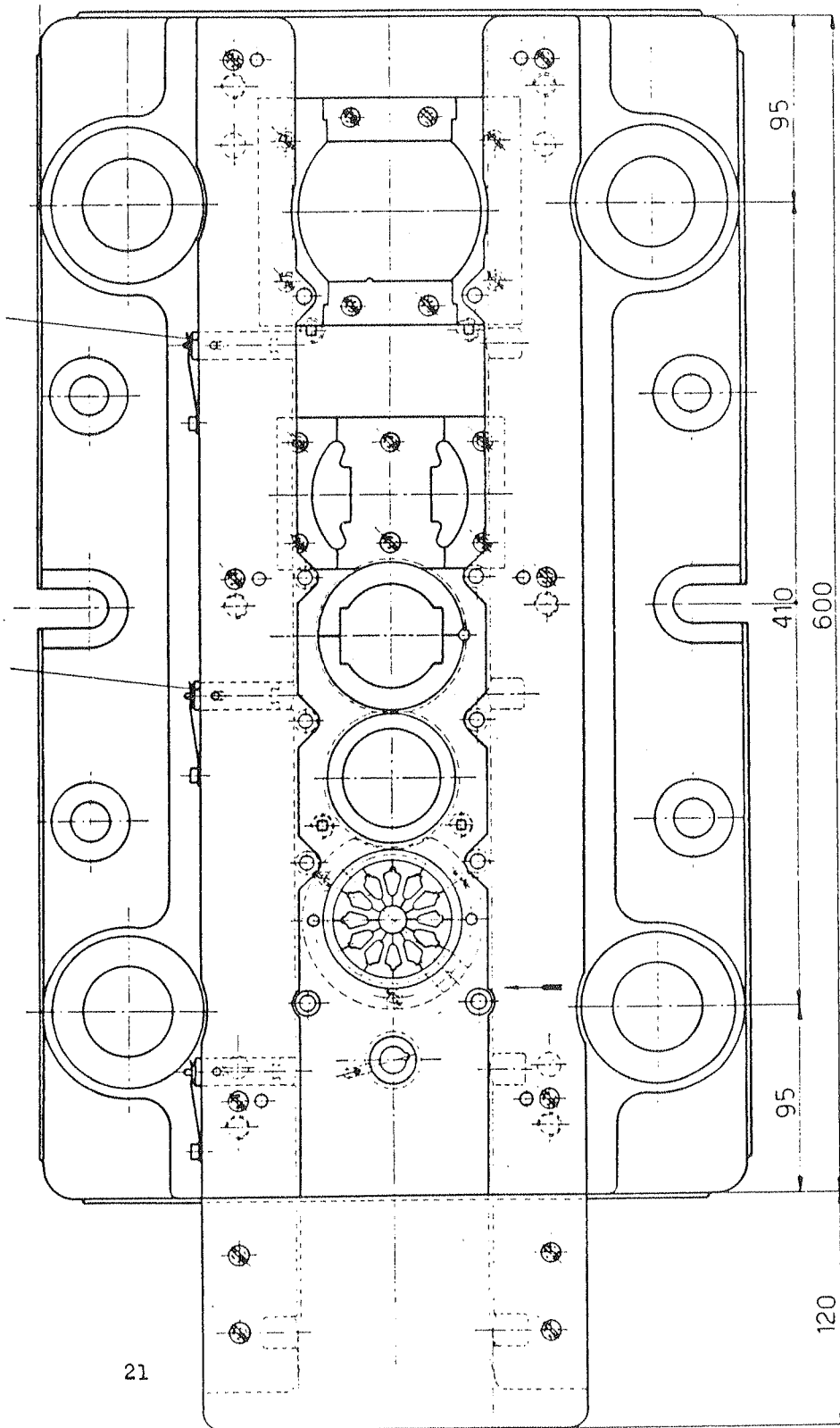
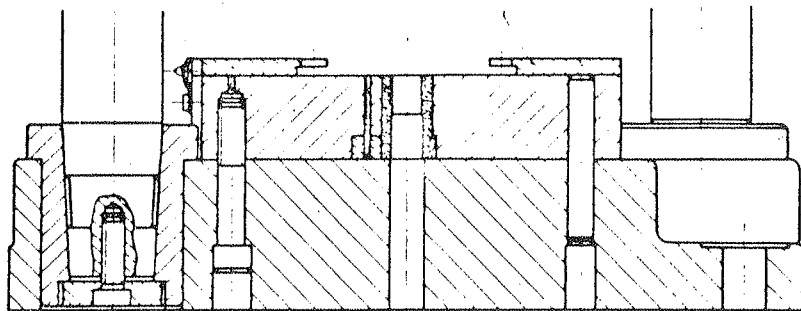
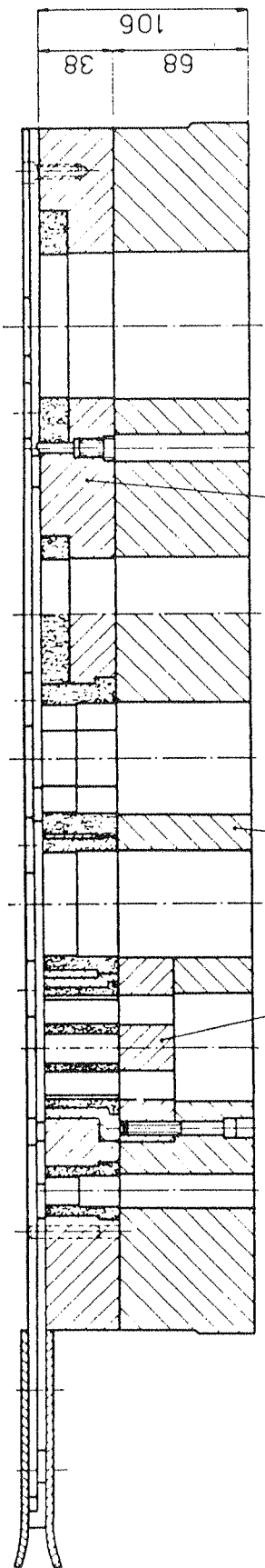




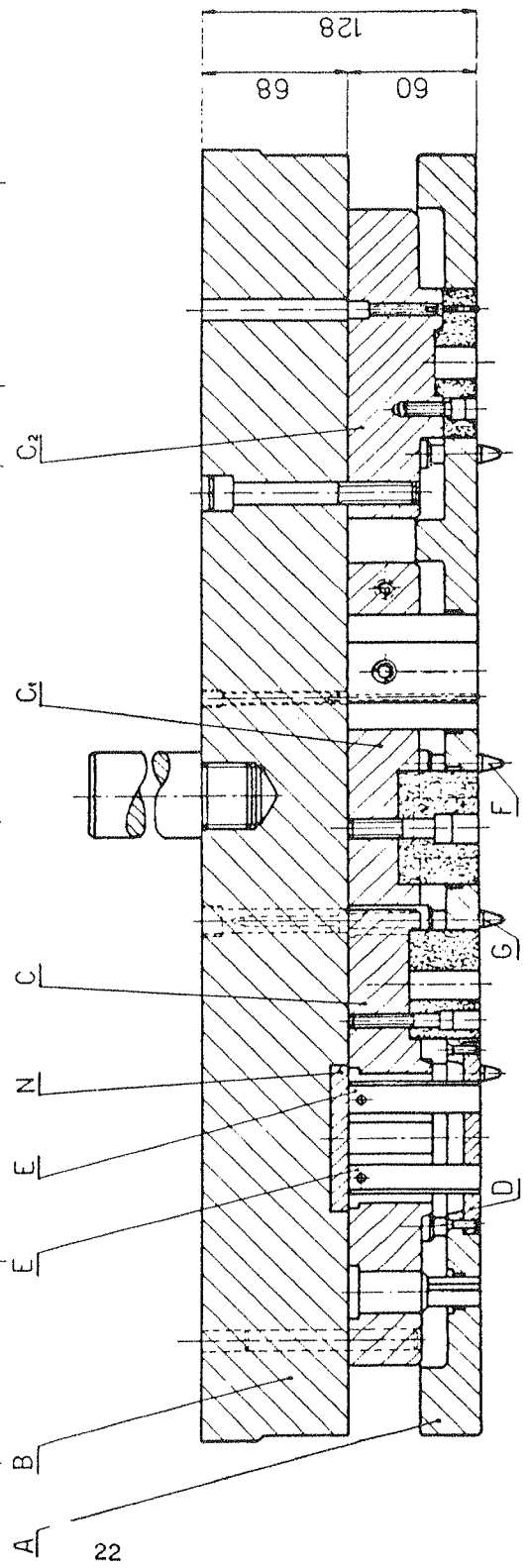
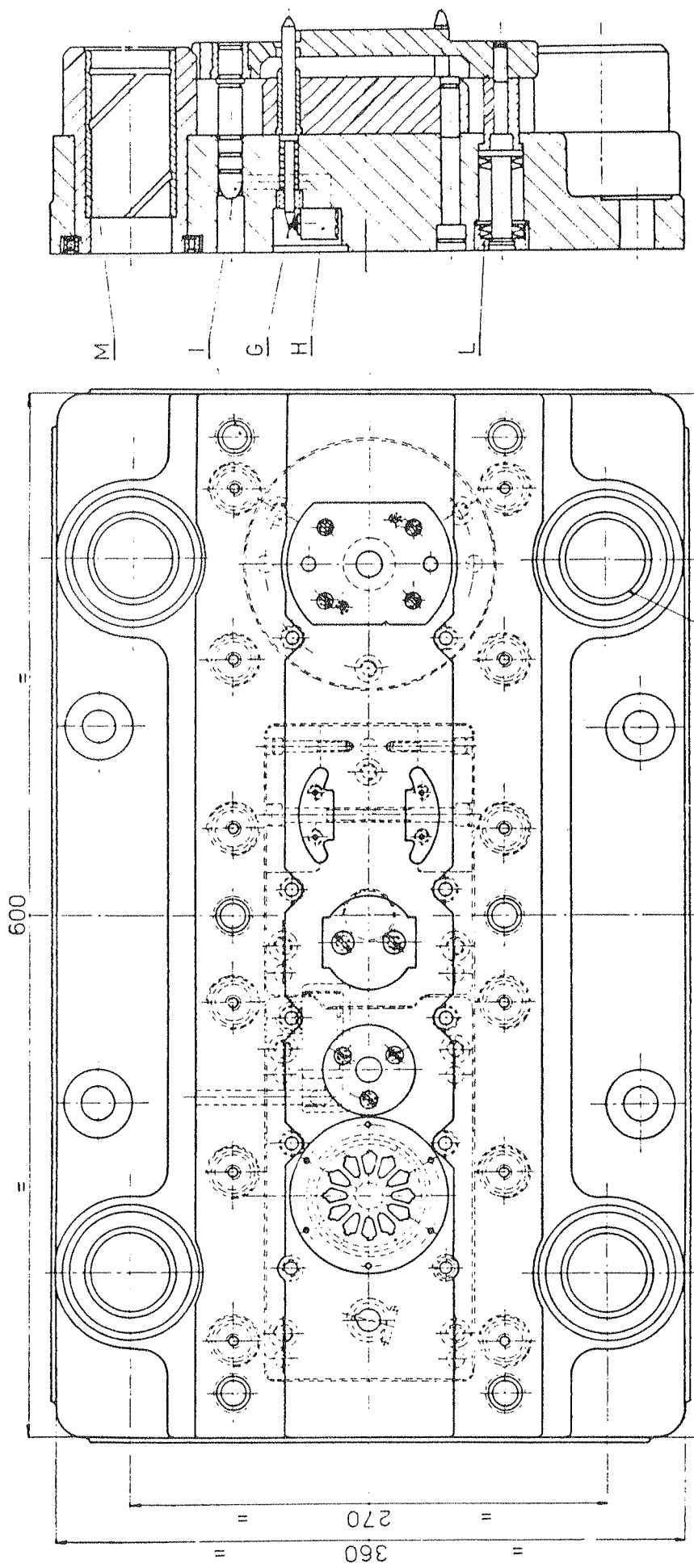


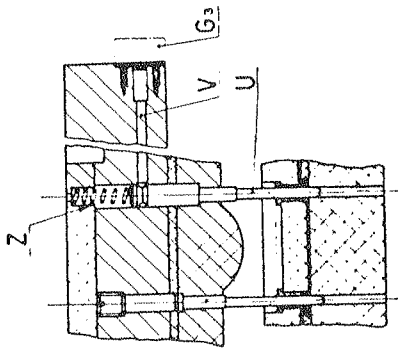
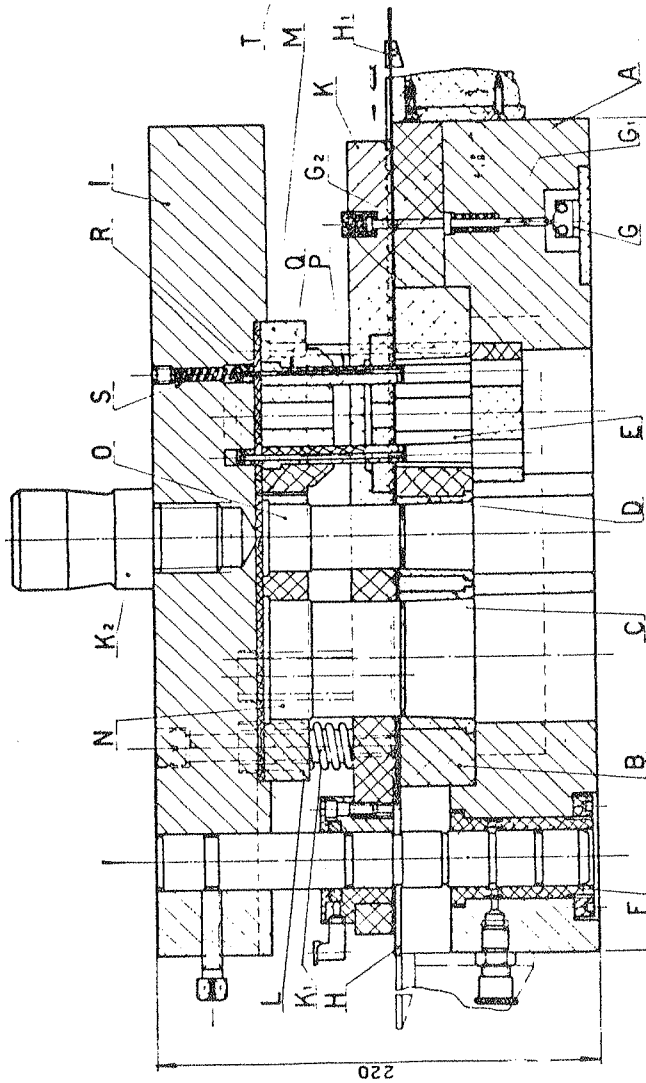
3. Operasyonda gösterilen parçanın imali için kullanılan birleşik kesme kalıbı



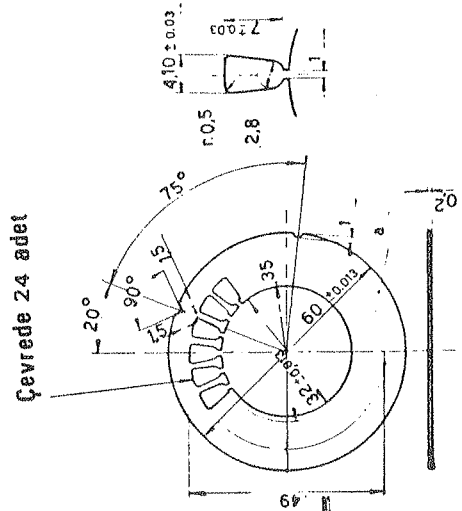
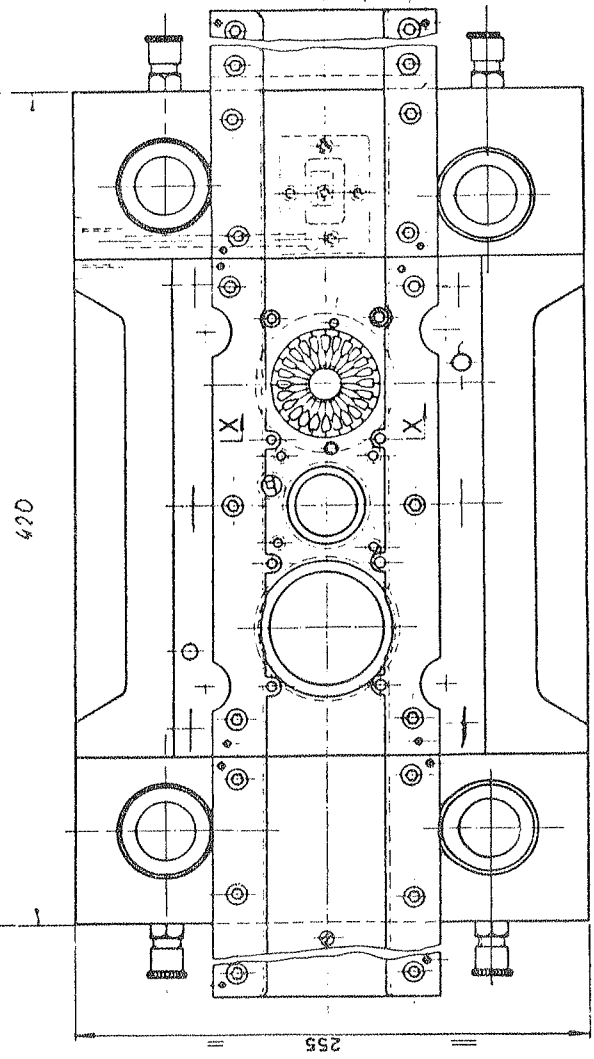


21

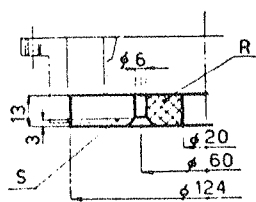
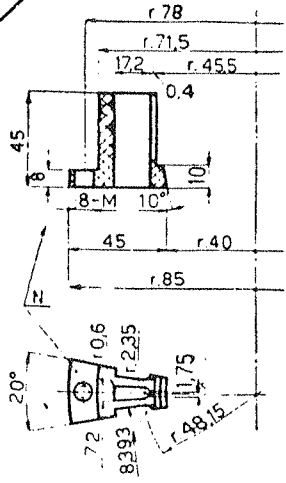
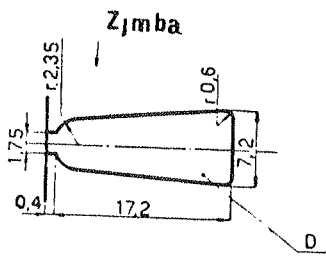
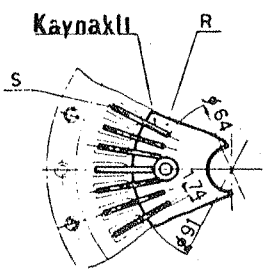
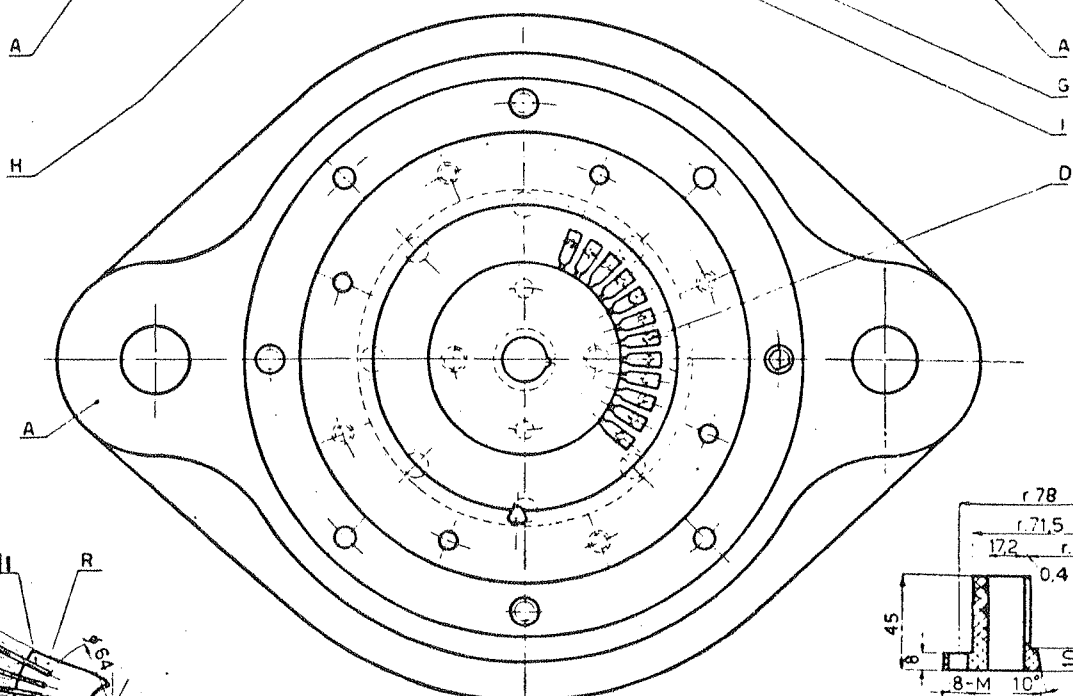
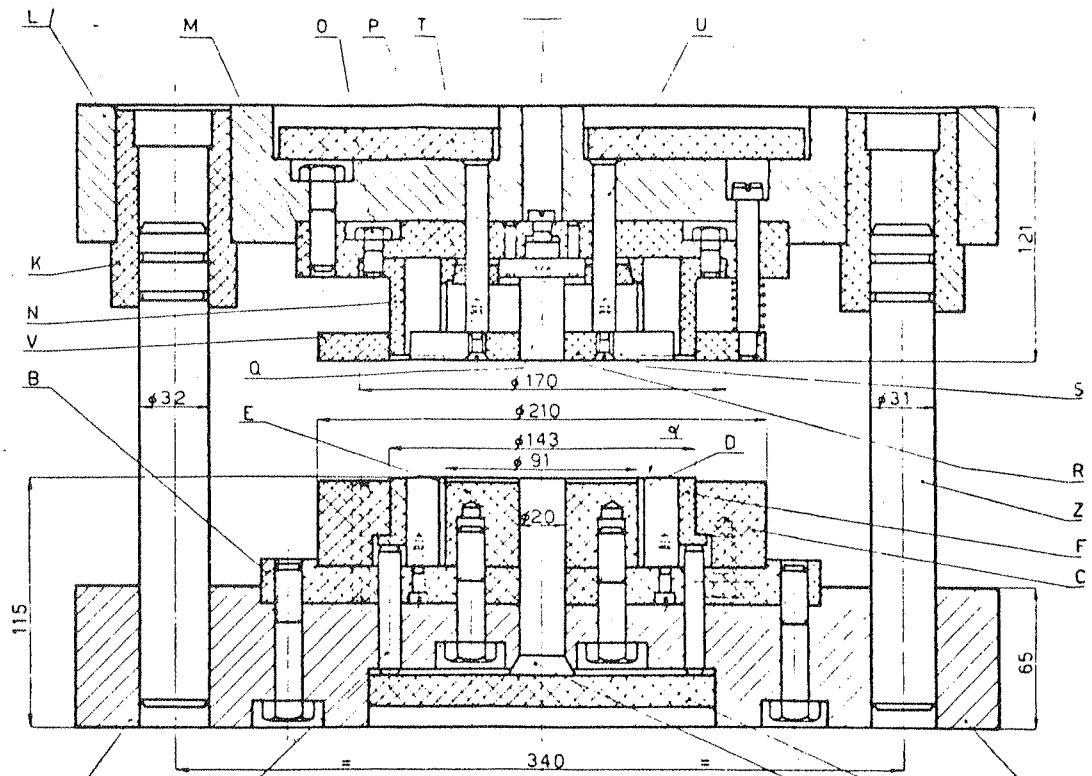




X-X Kesiti



Çevrede 24 adet

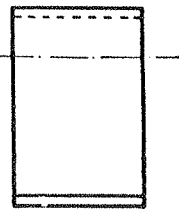
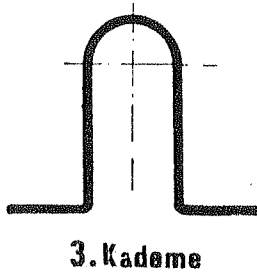
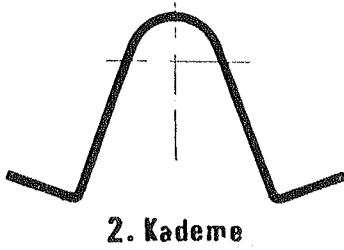
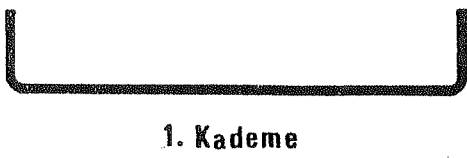
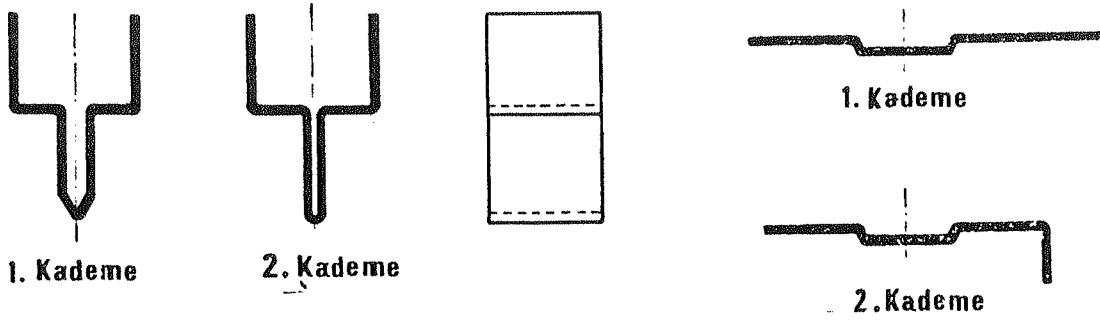
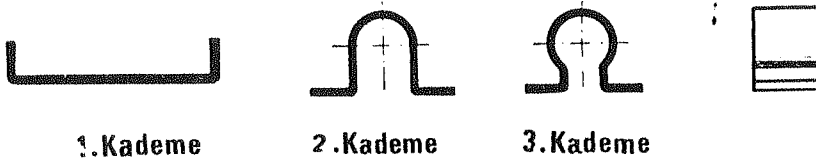
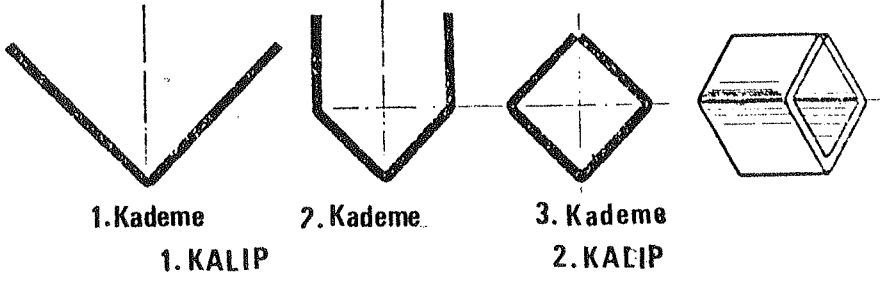


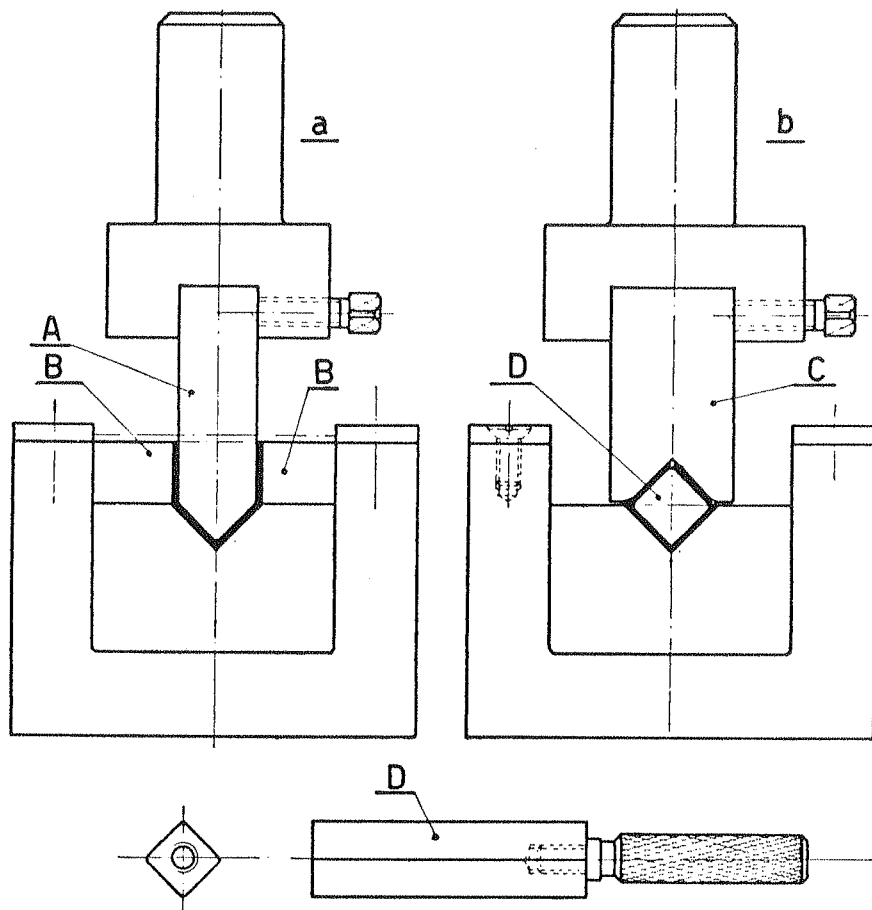


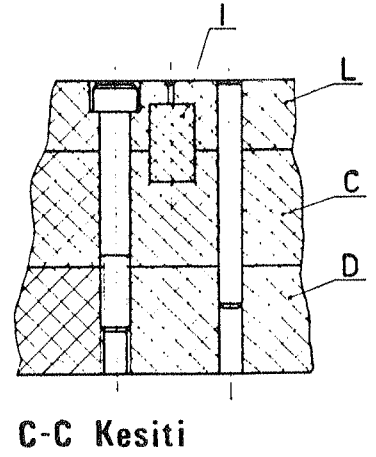
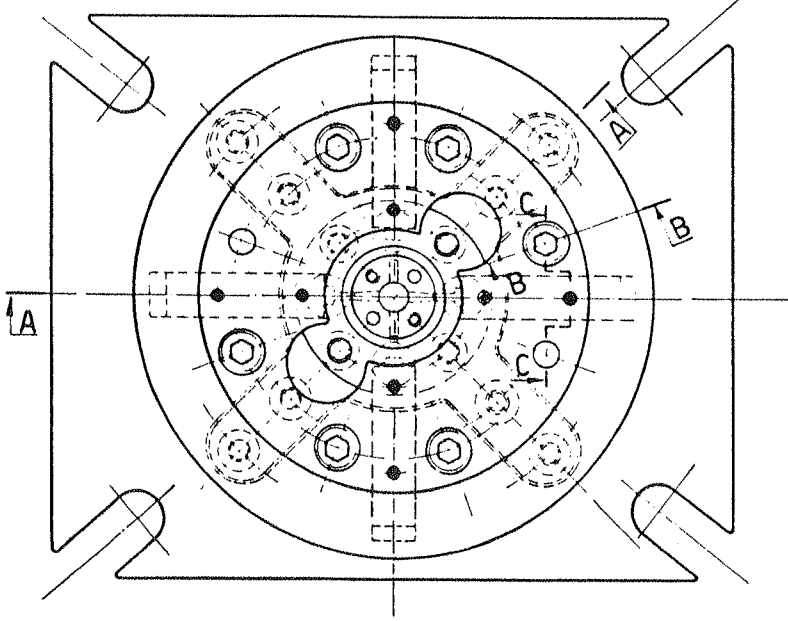
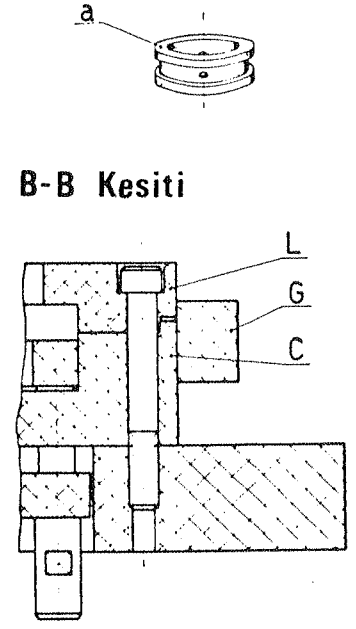
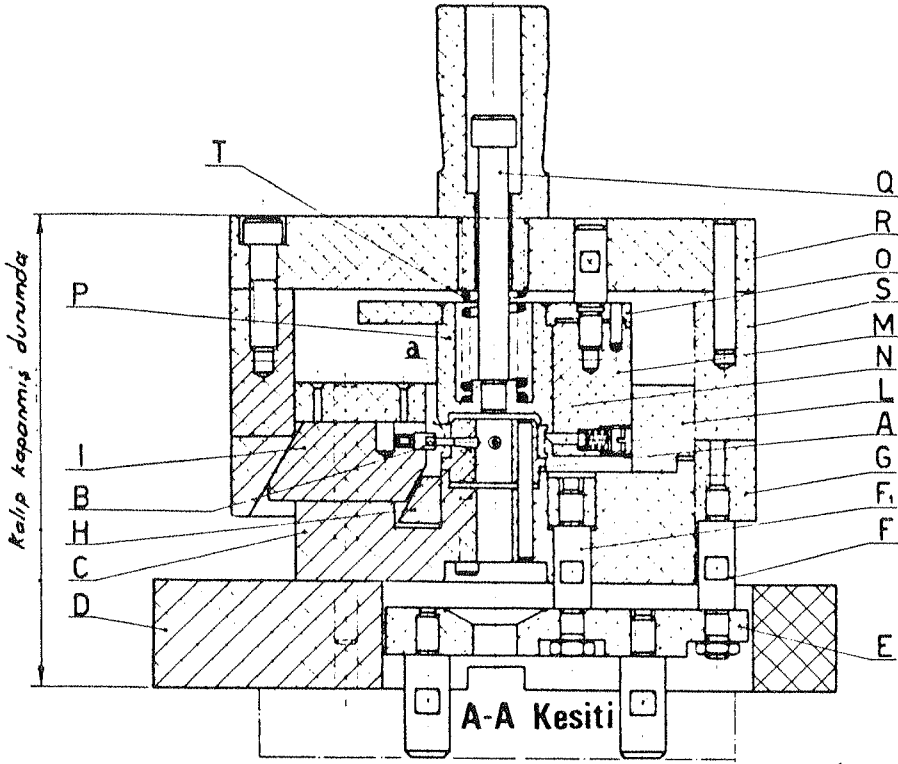
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**BÜKME KALIPLARINA AİT  
ÖRNEKLER**

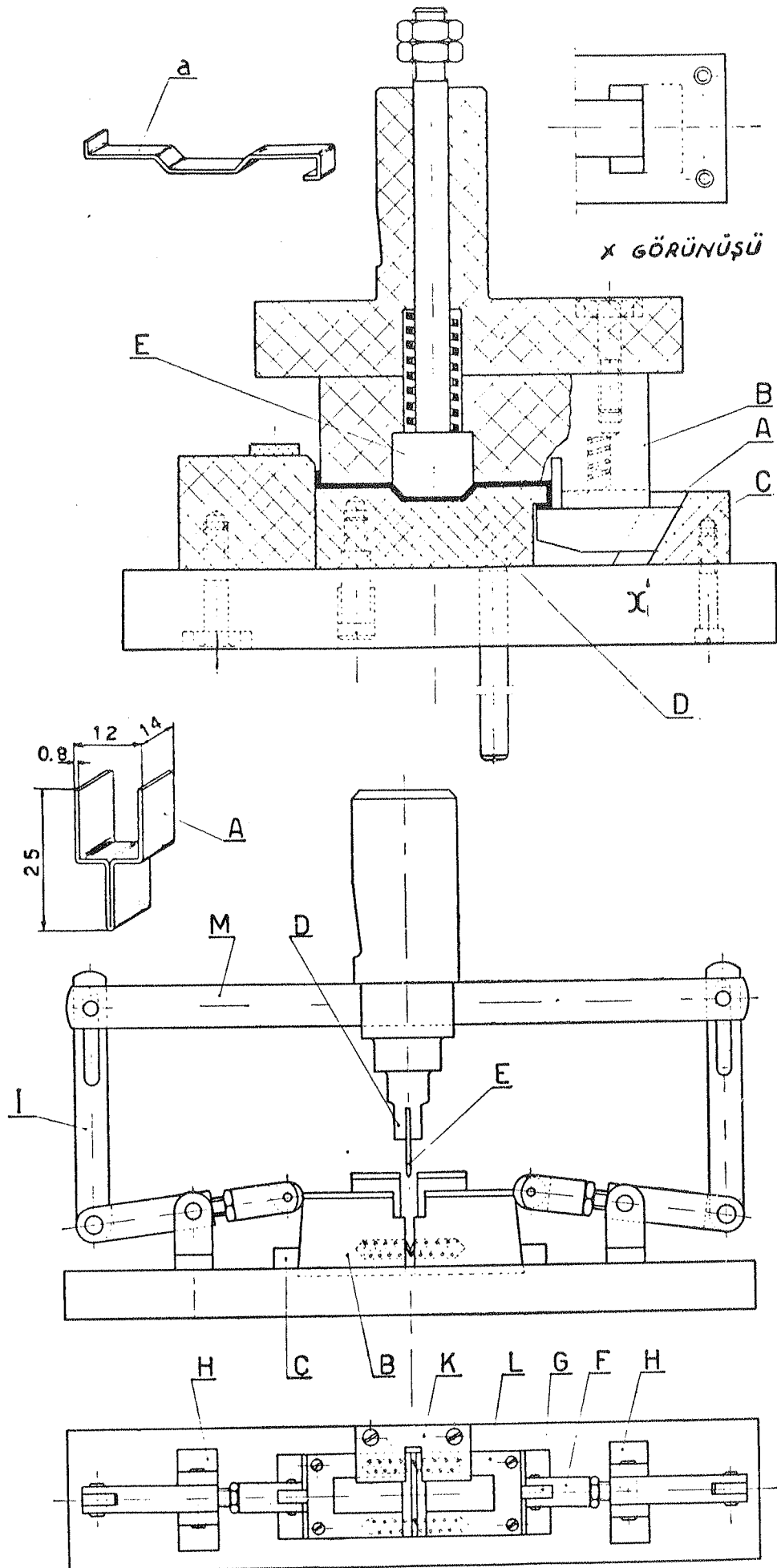
## BÜKME İŞLEMİ OPERASYON SIRALARI

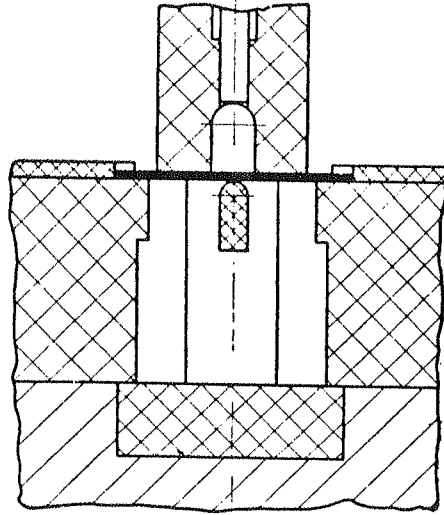
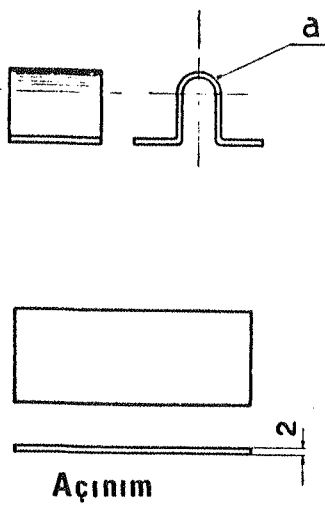
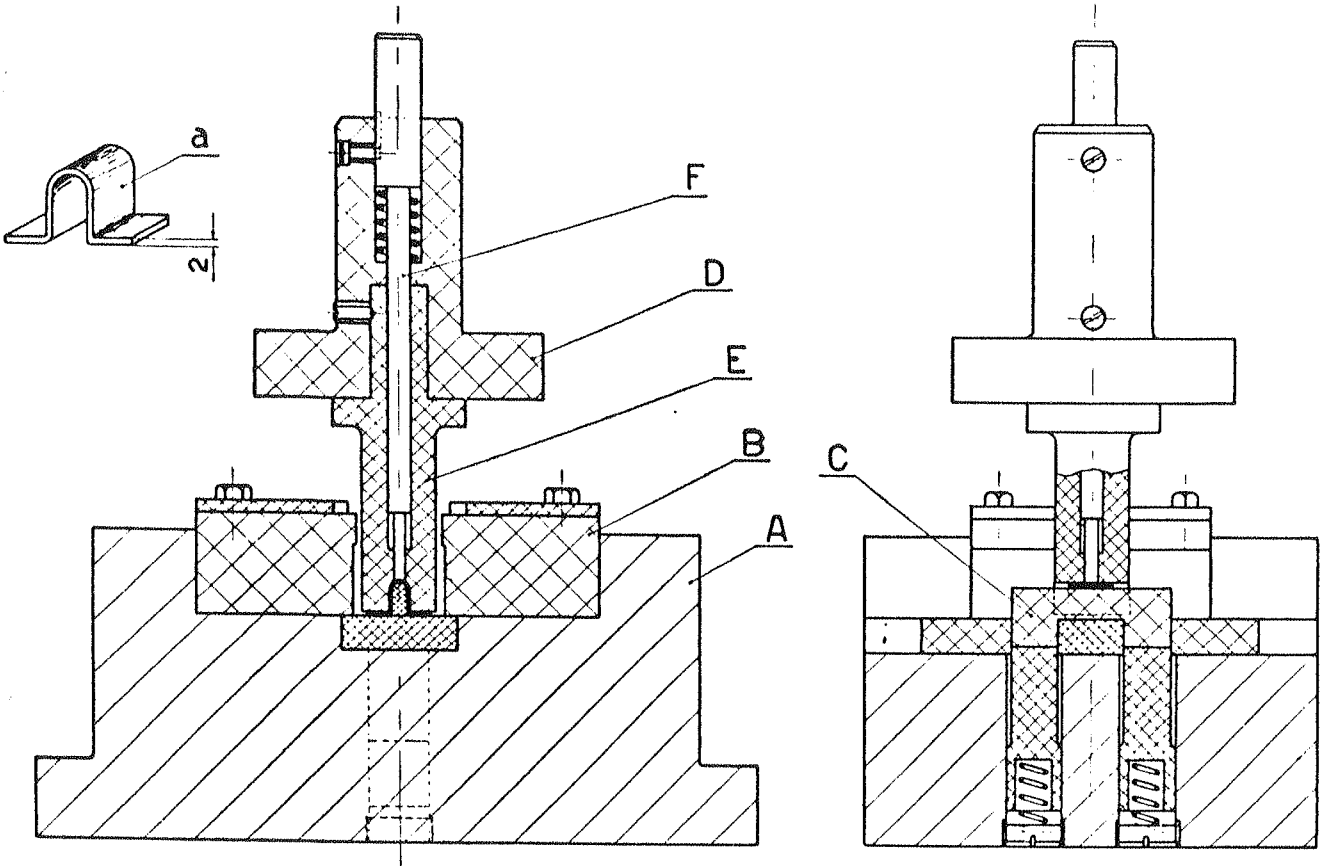




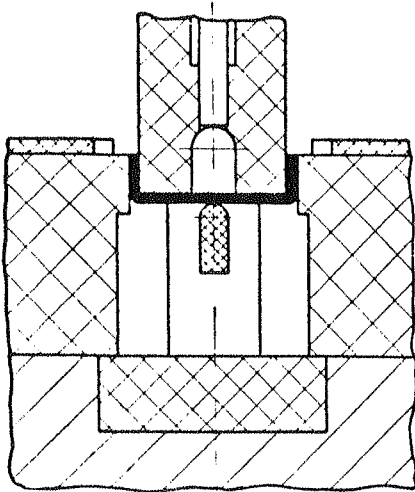


Çevresinde 4 yatay deliği olan parçaya ait delme kalıbı

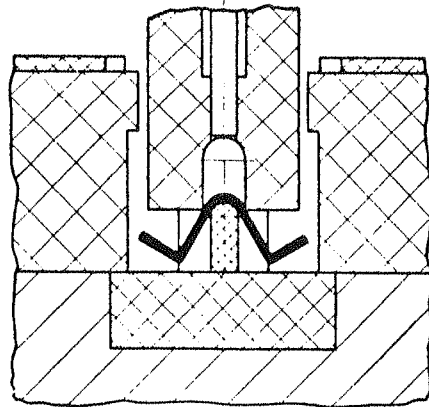




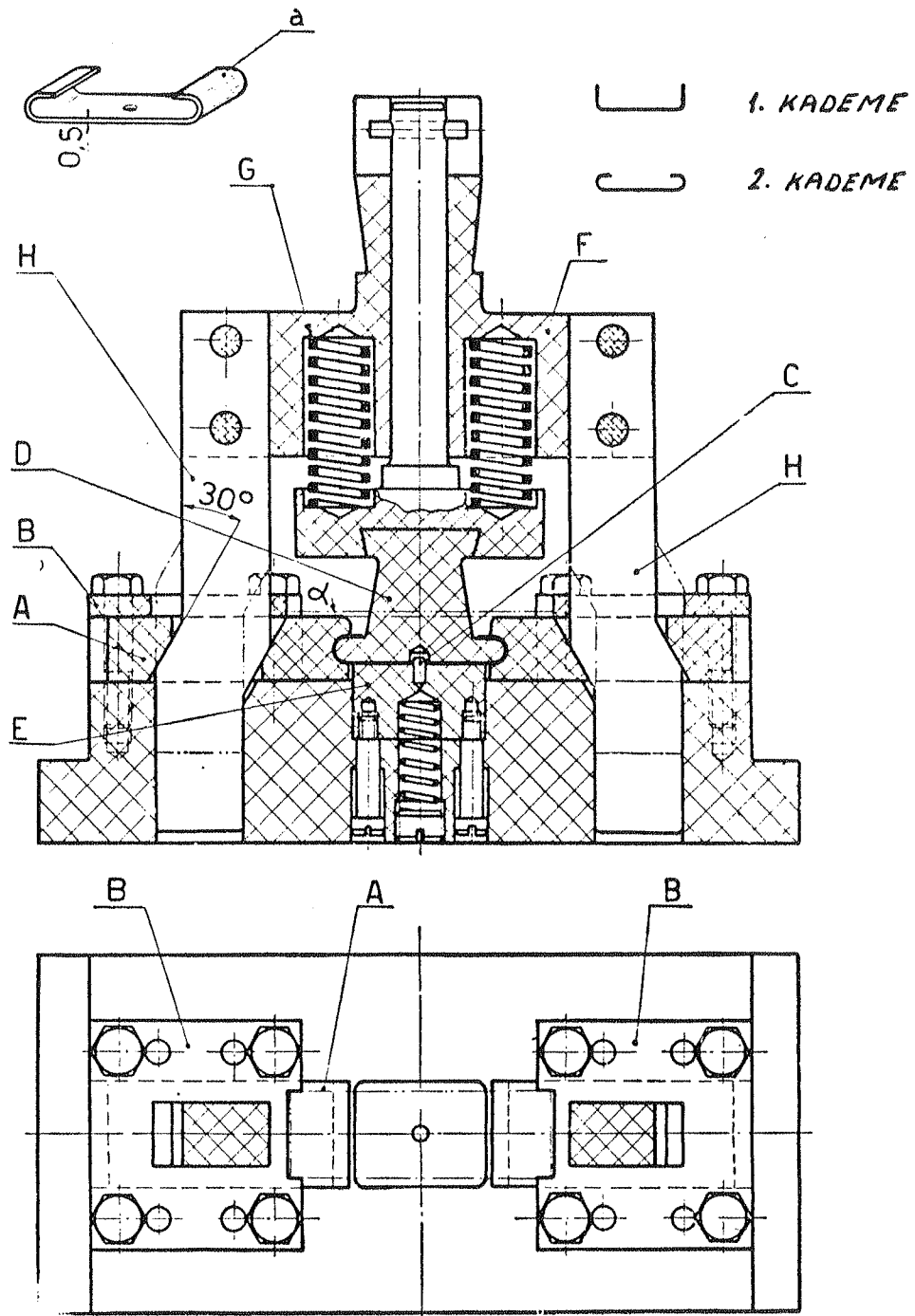
1. Kademe

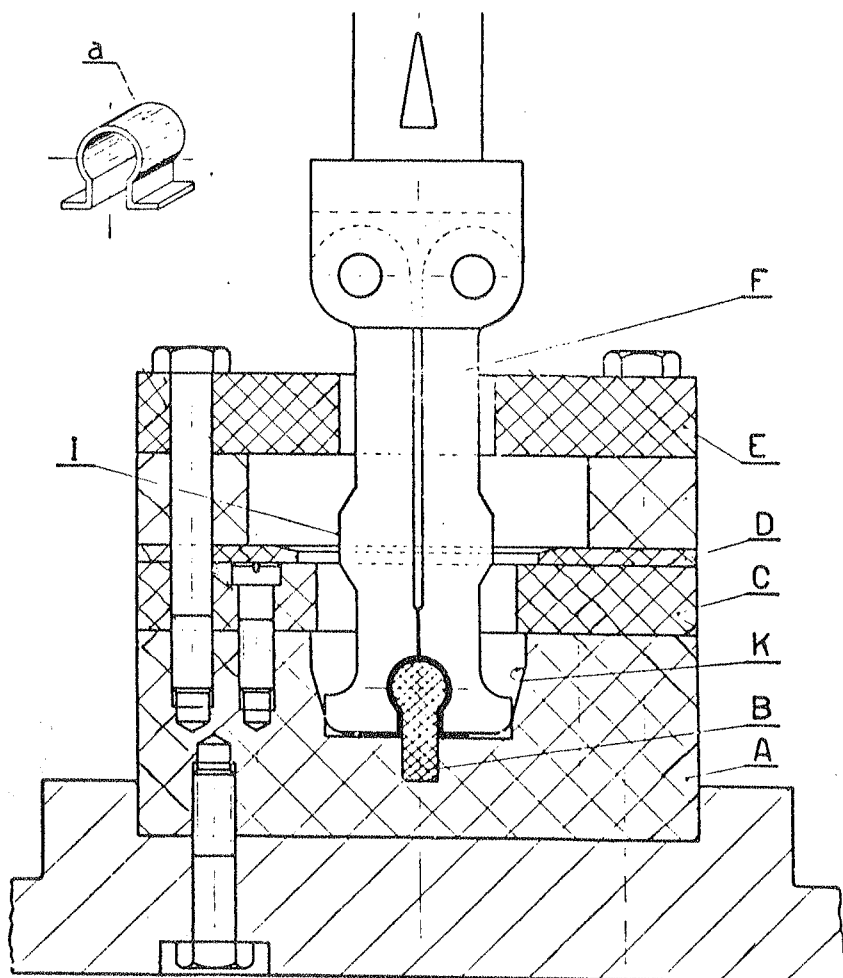
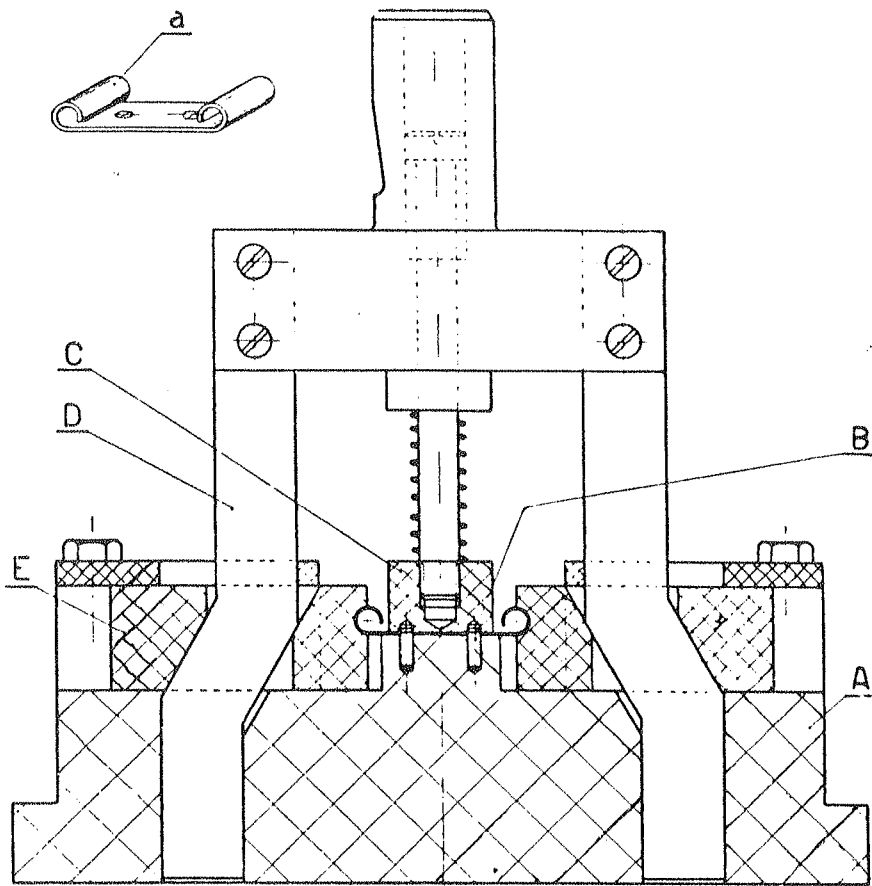


2. Kademe

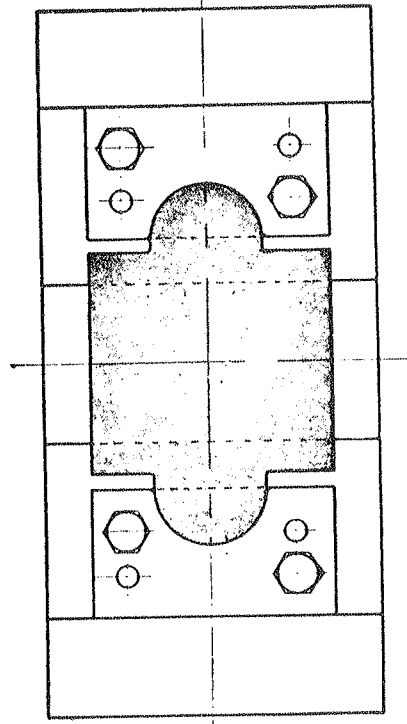
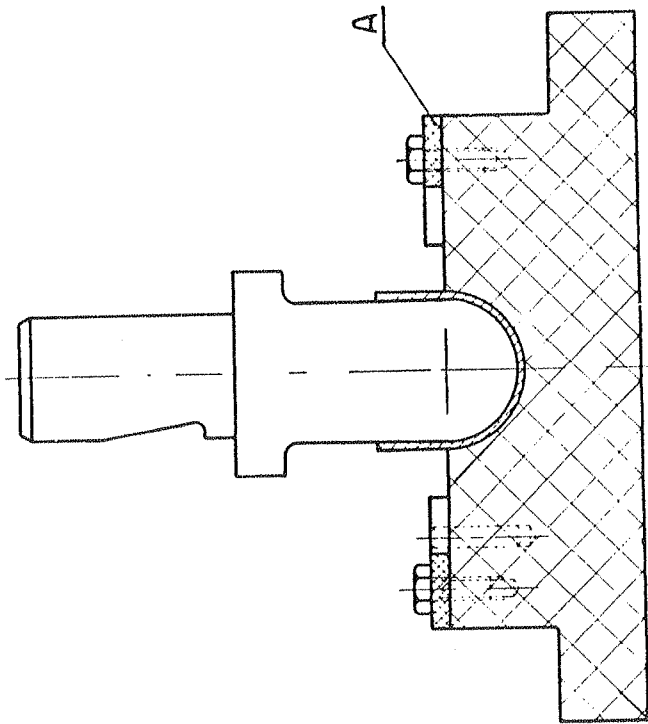
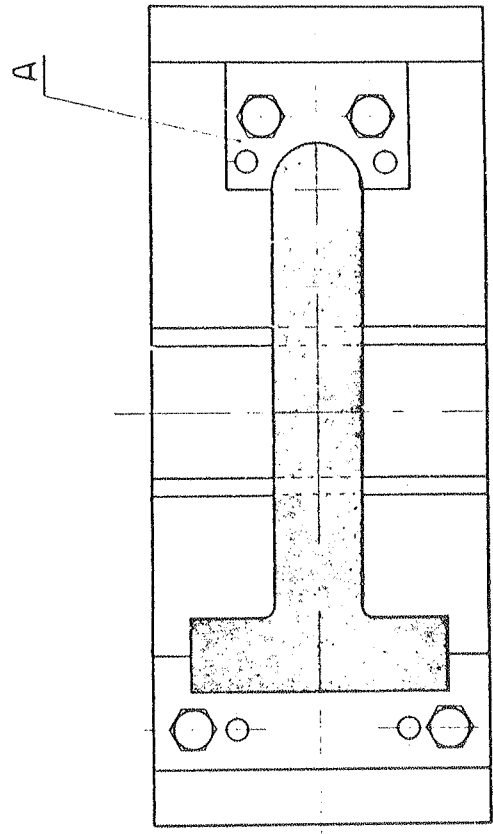
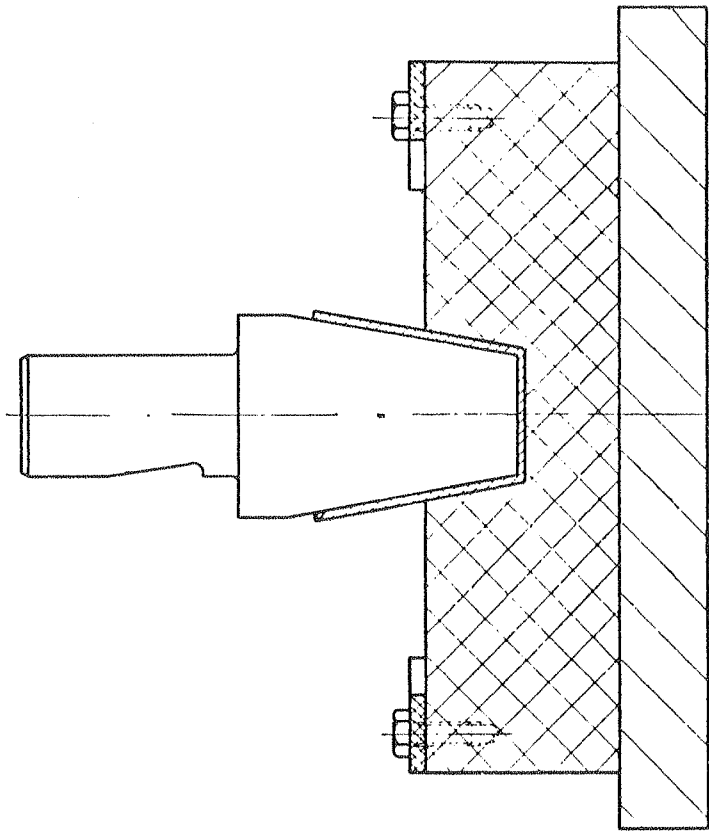


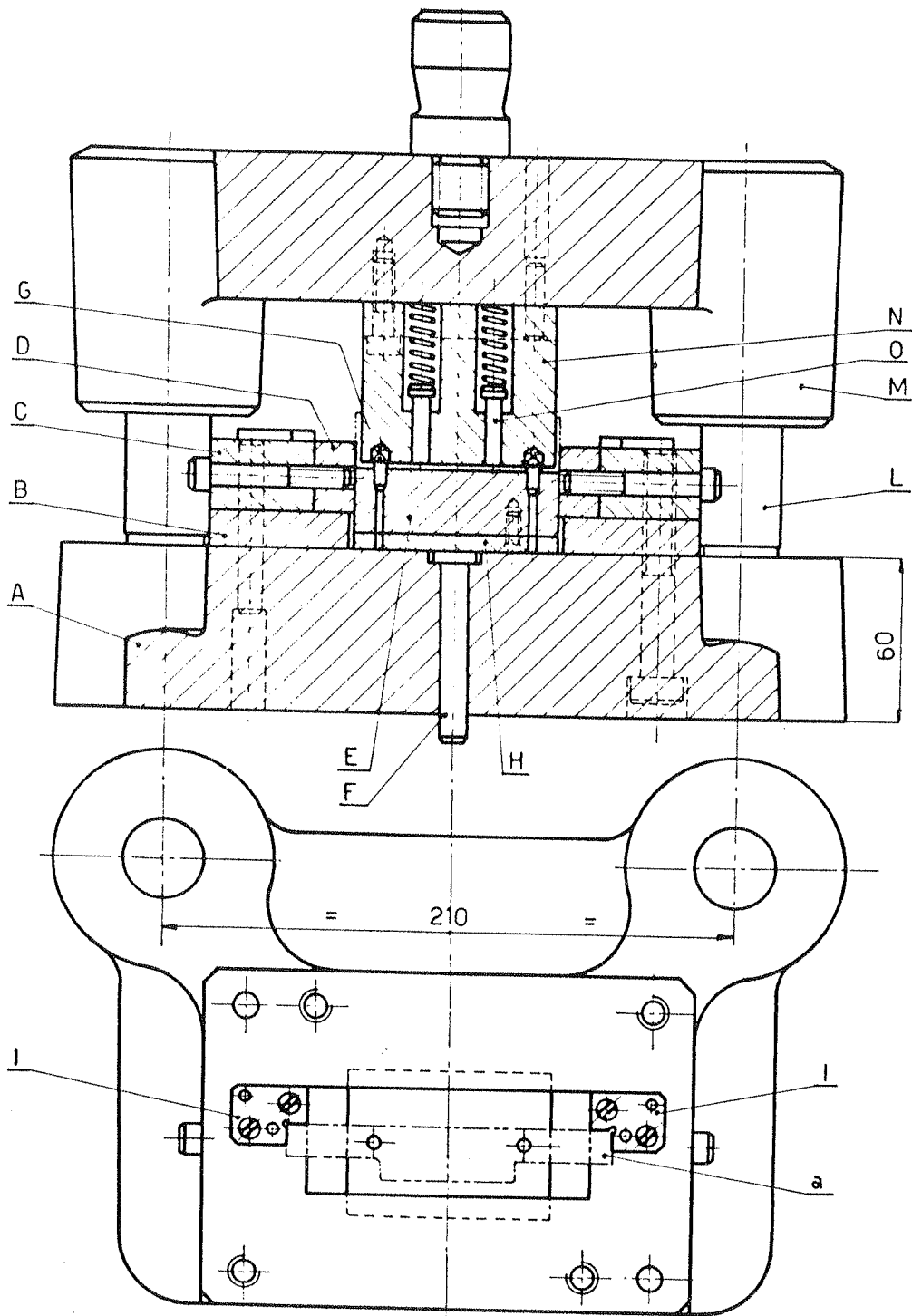
3. Kademe

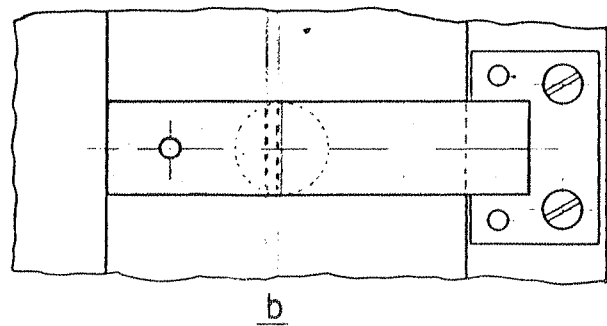
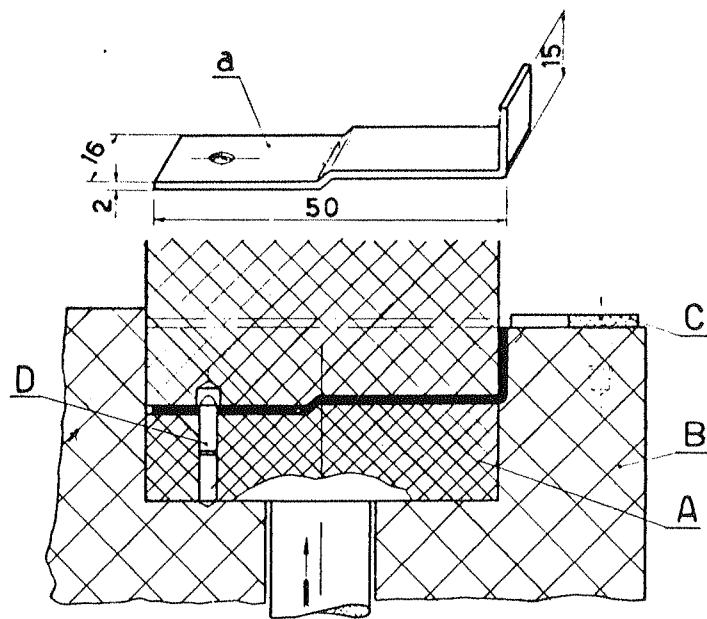
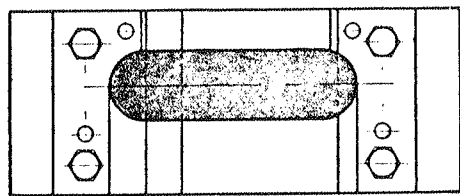
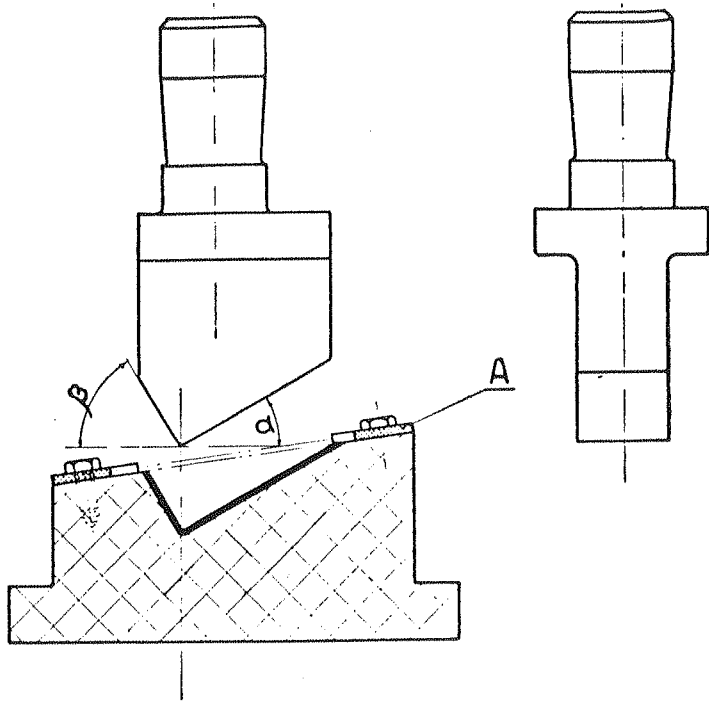




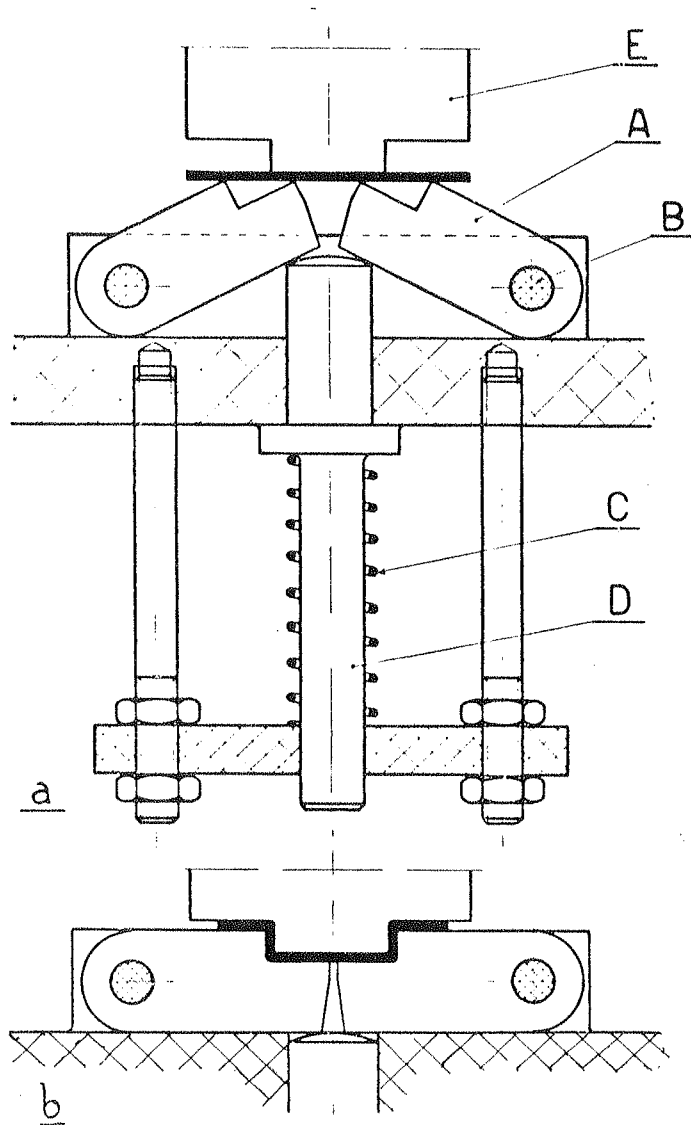
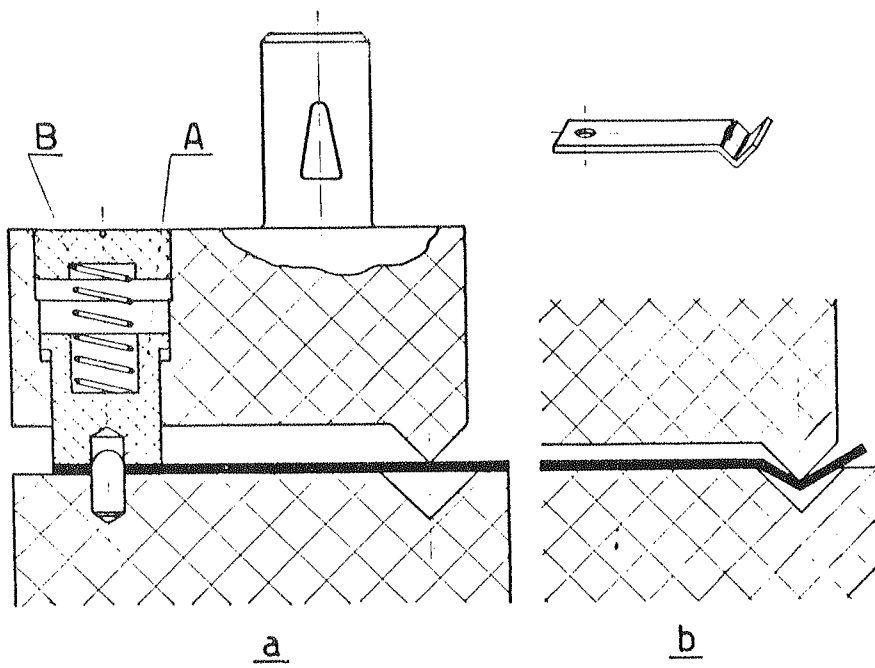


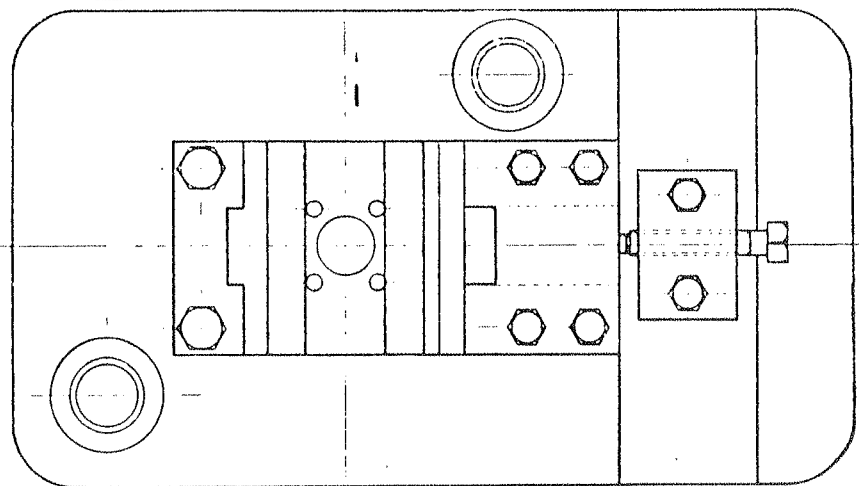
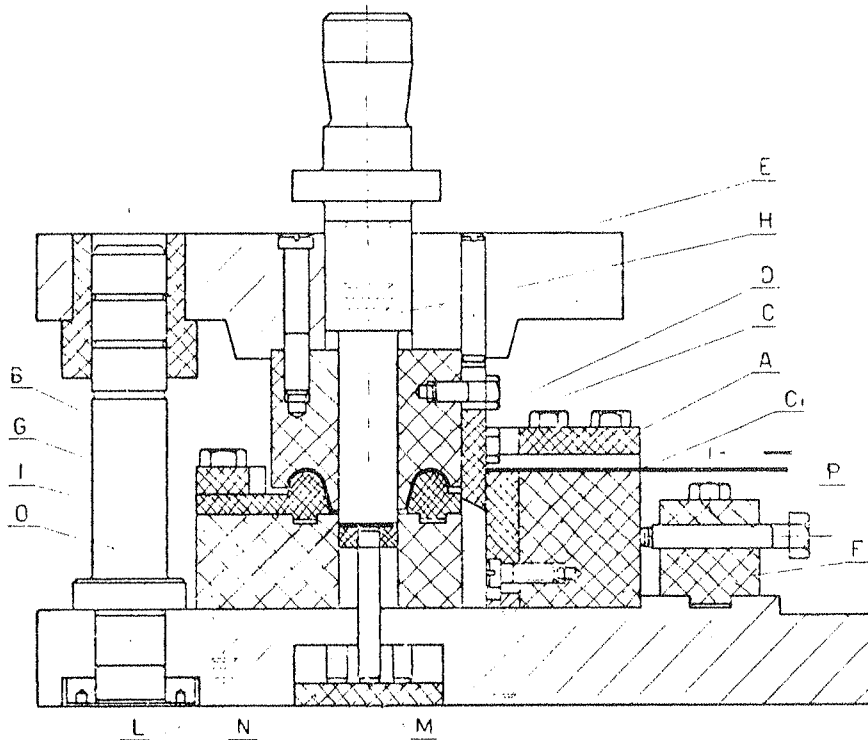
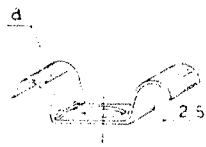


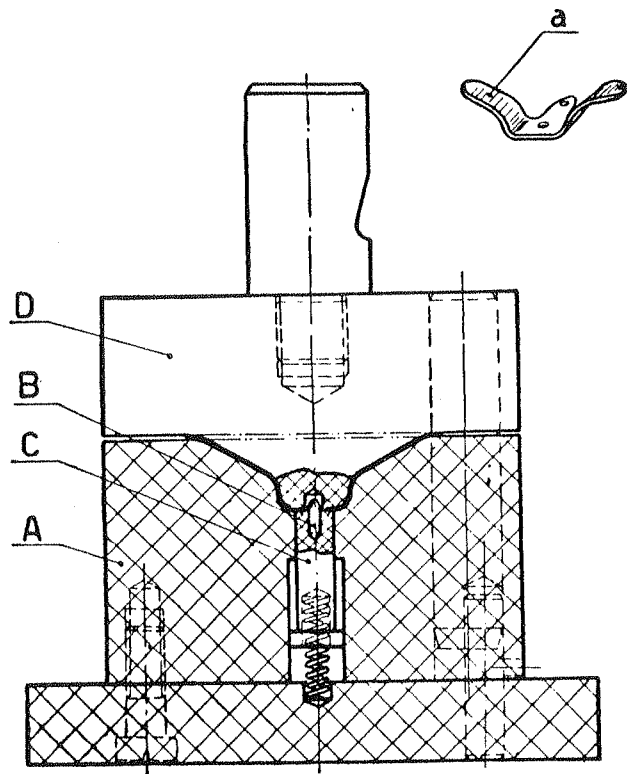




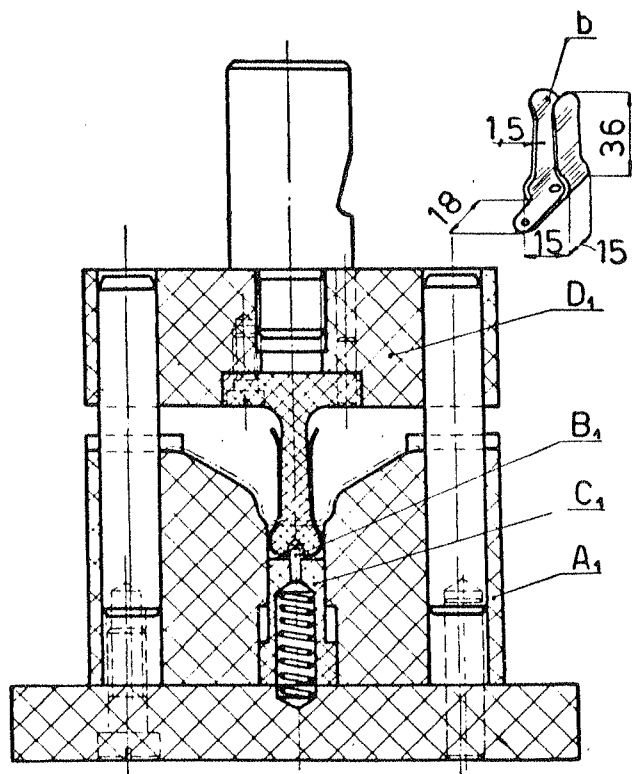
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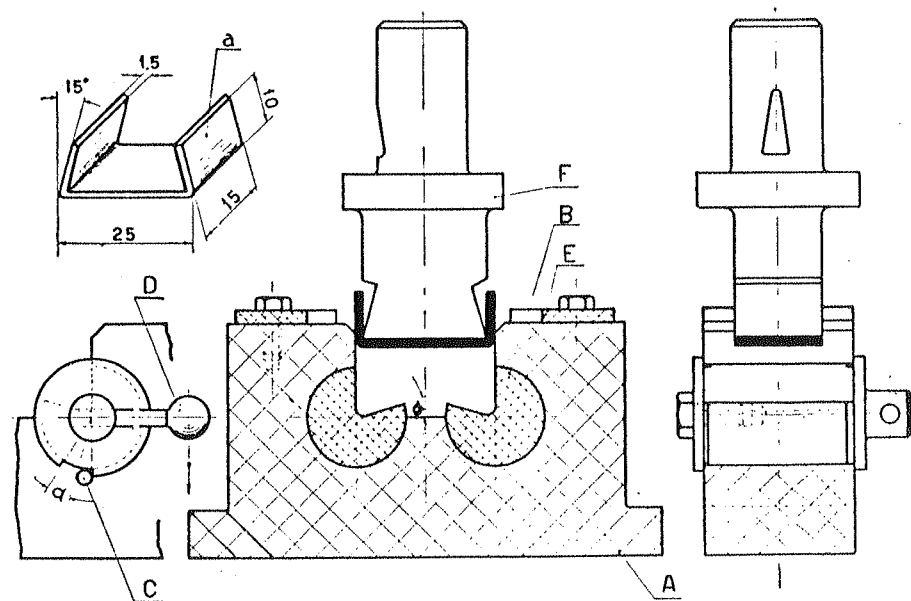
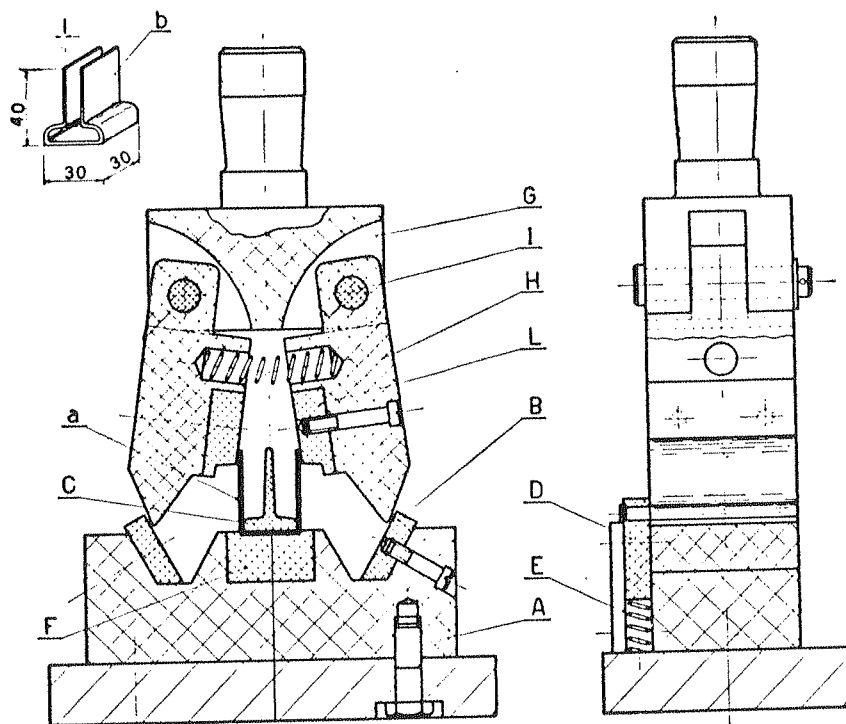


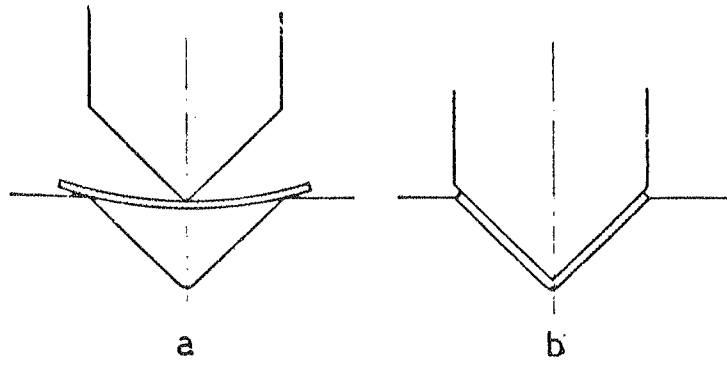


1. BÜKME

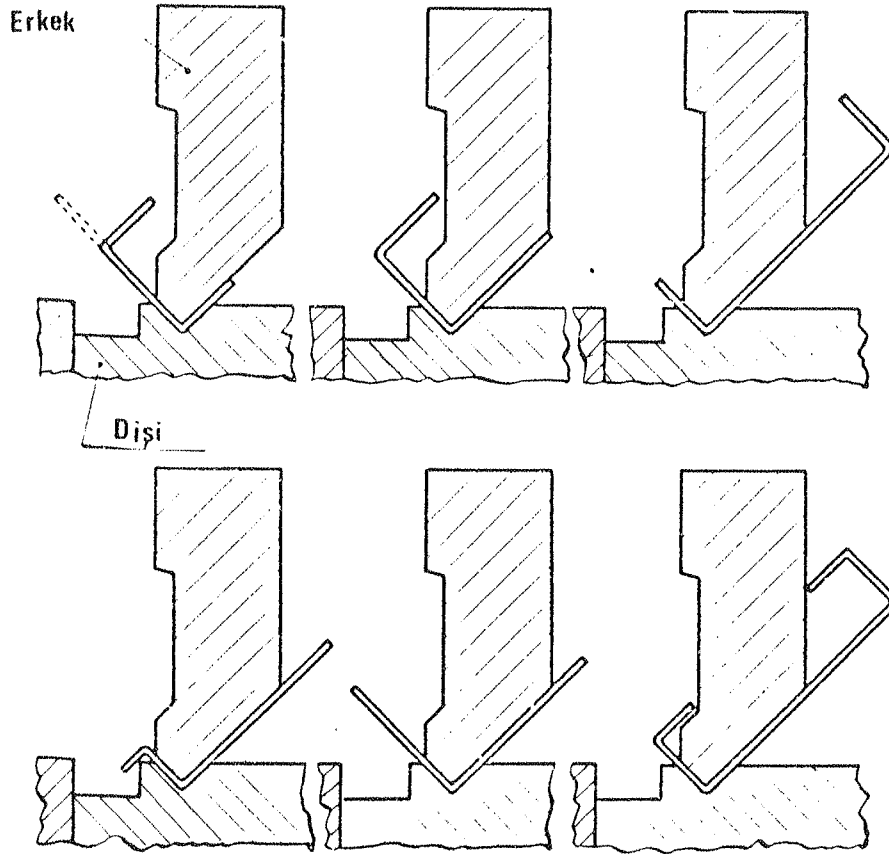


2. BÜKME



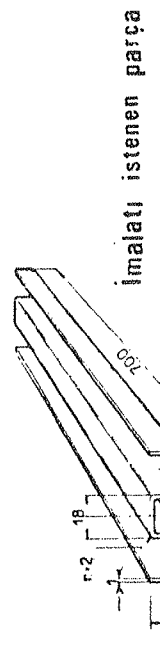


Basit bir açılı bükme kalıbı



Abkant preste uygulanan bükme çeşitleri



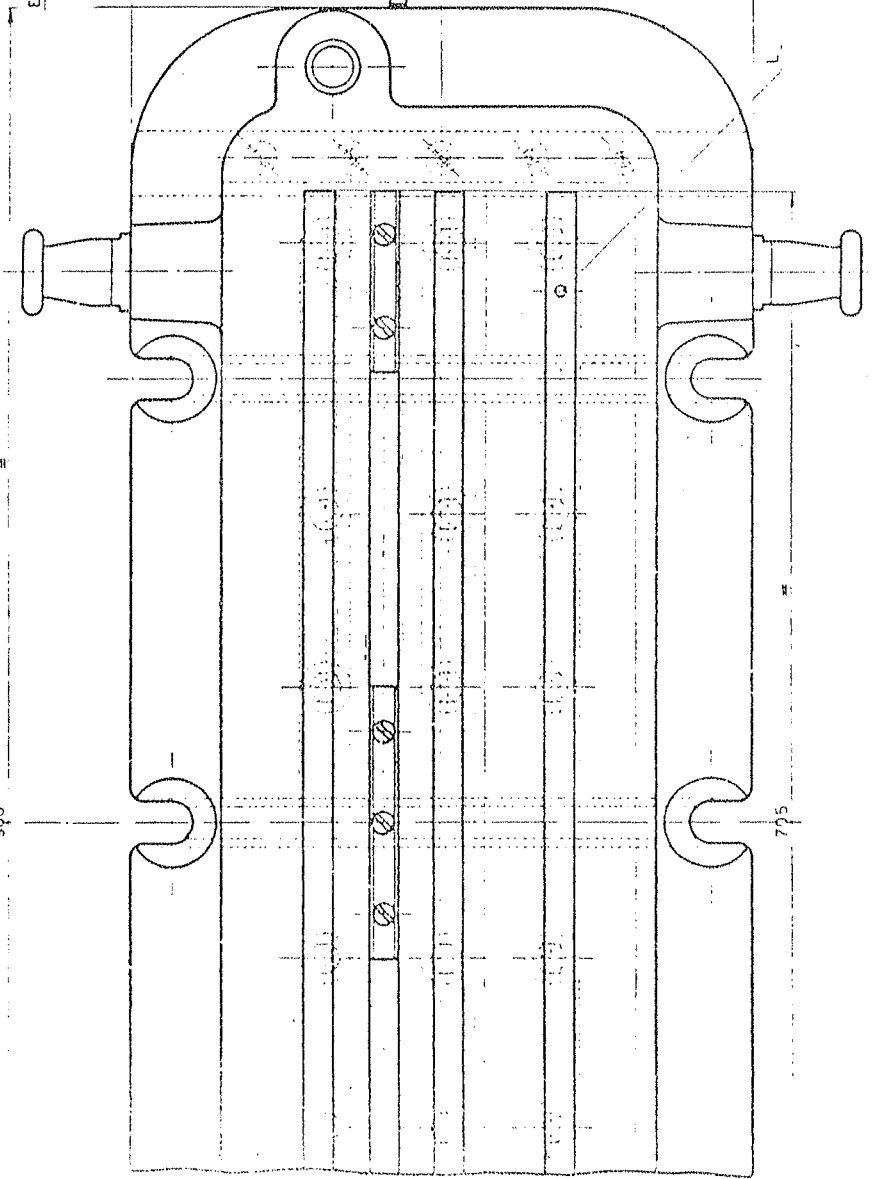
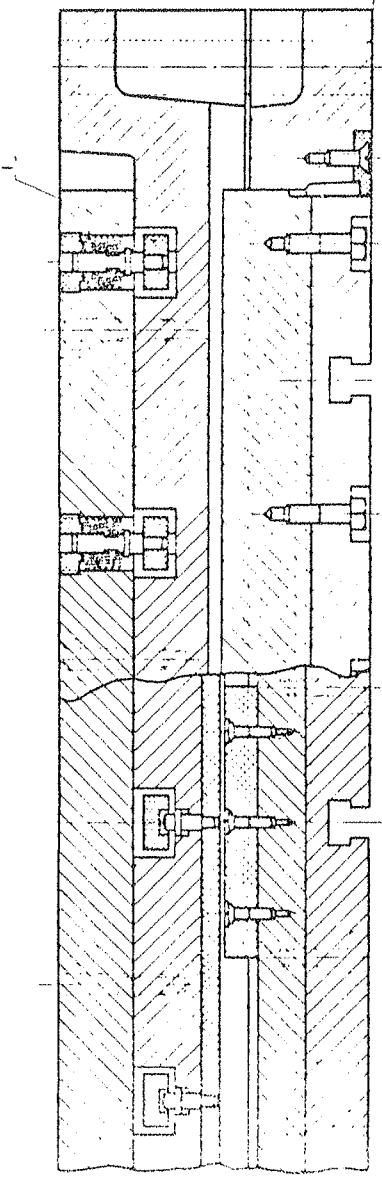
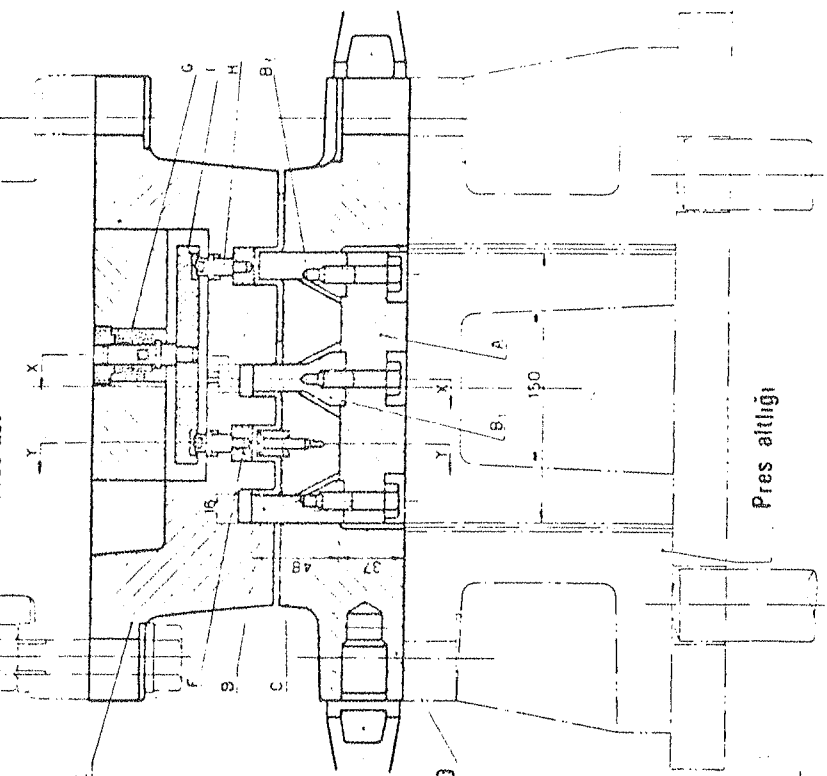


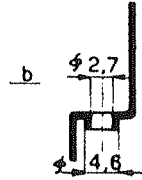
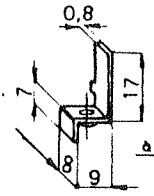
2. Kademe

1. Kademe

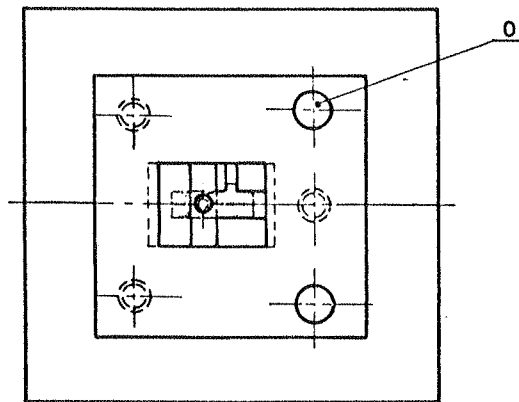
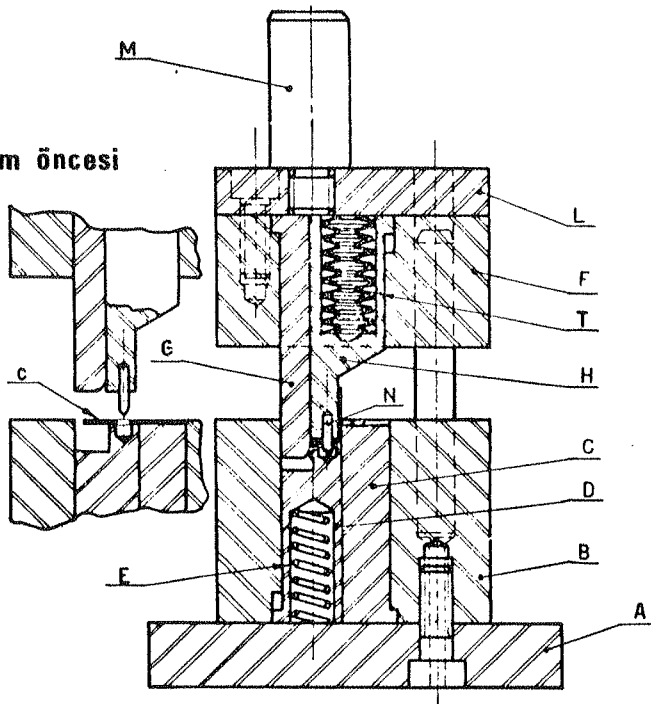
Pres üst tablası

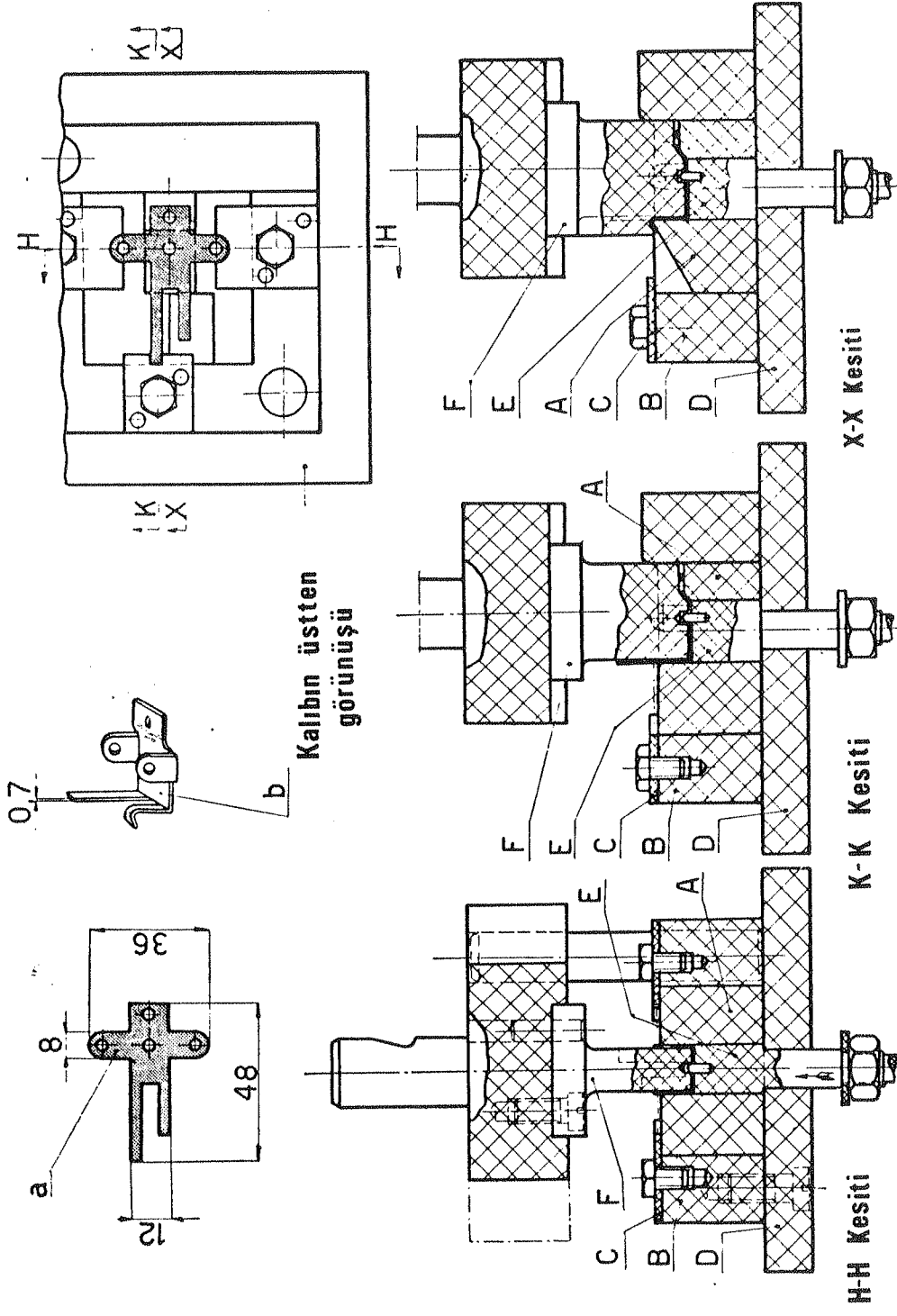
Parça açınımları

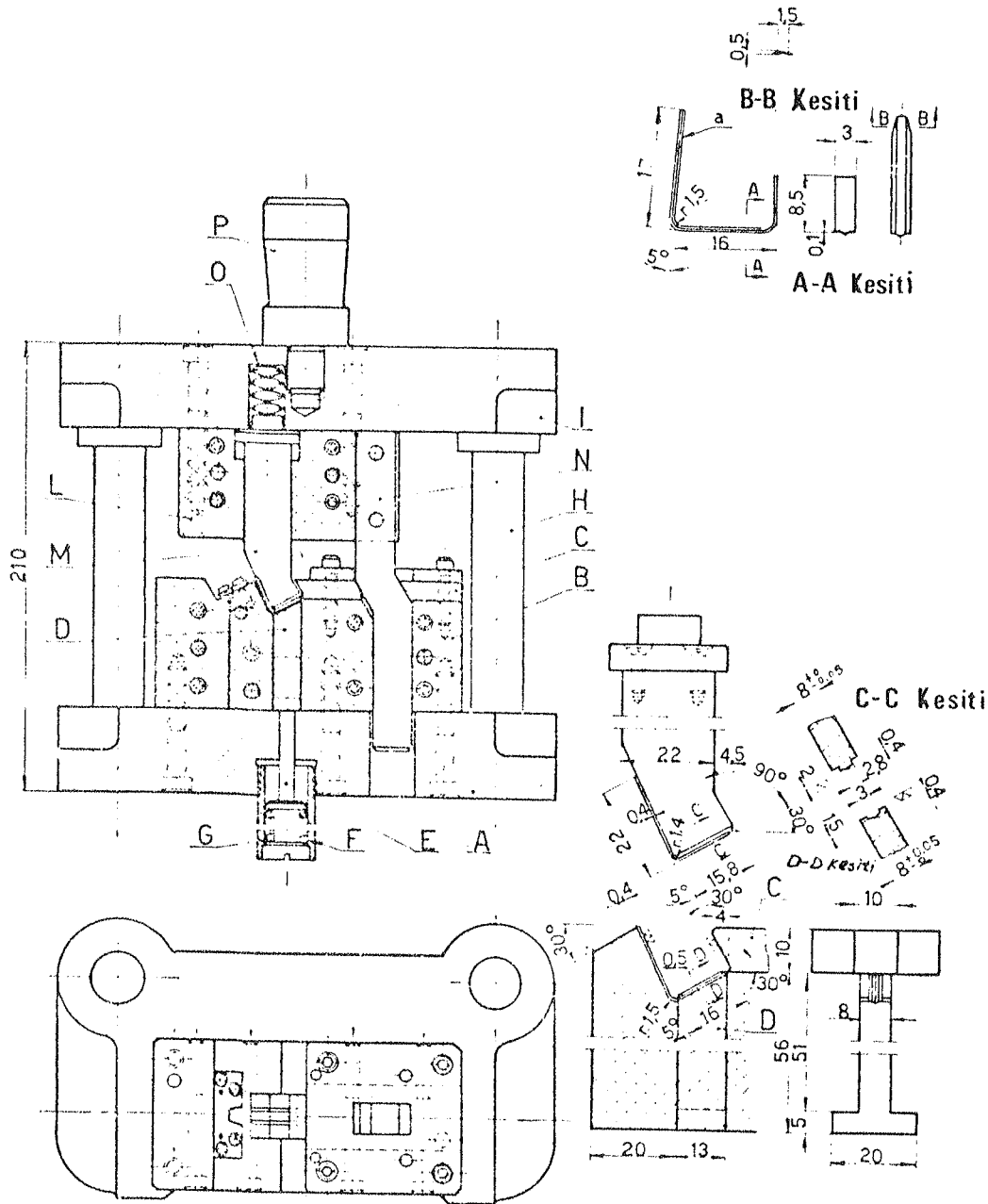


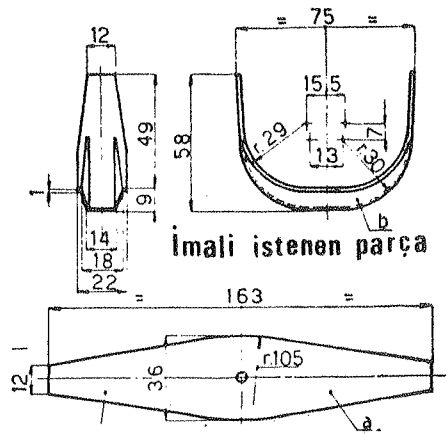


**İşlem öncesi**





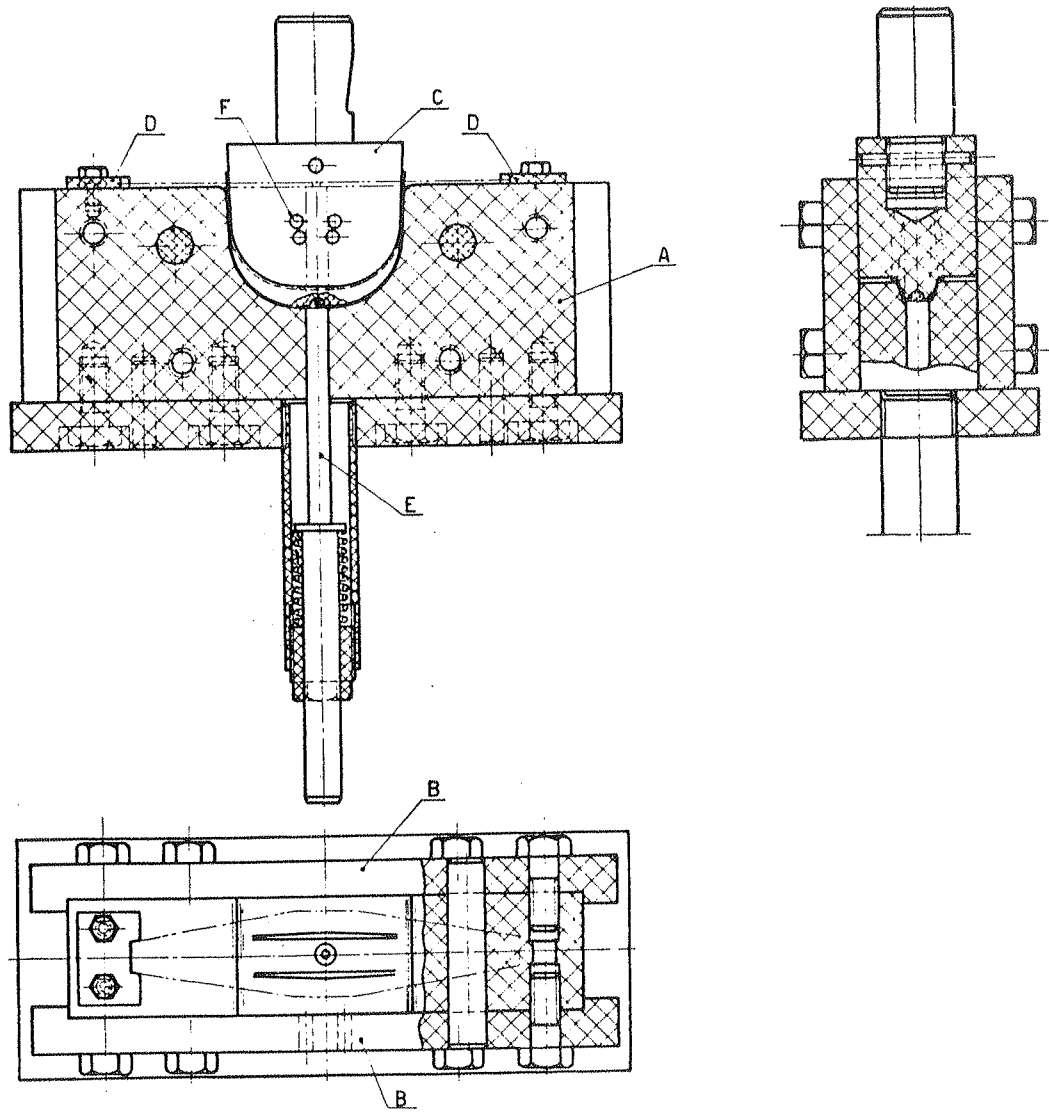


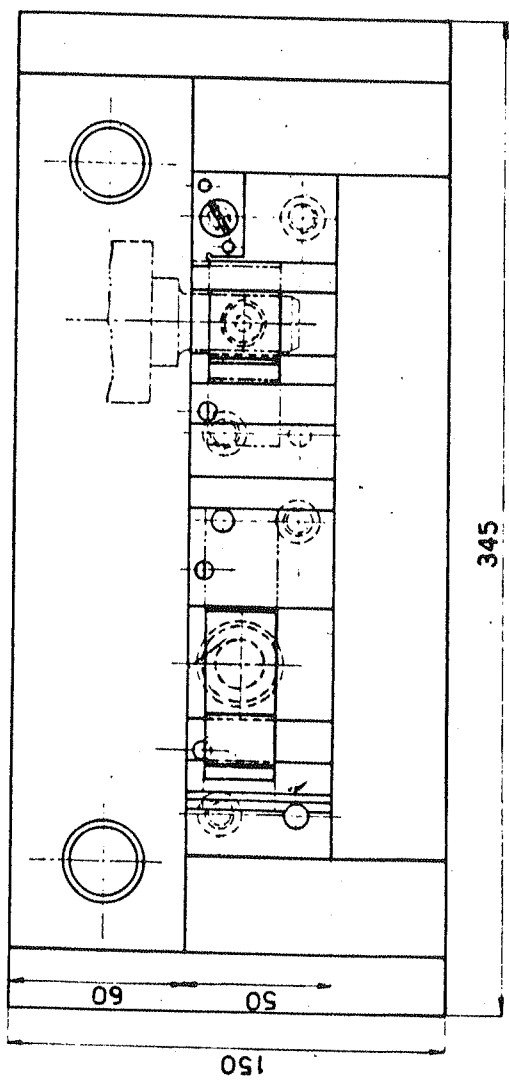
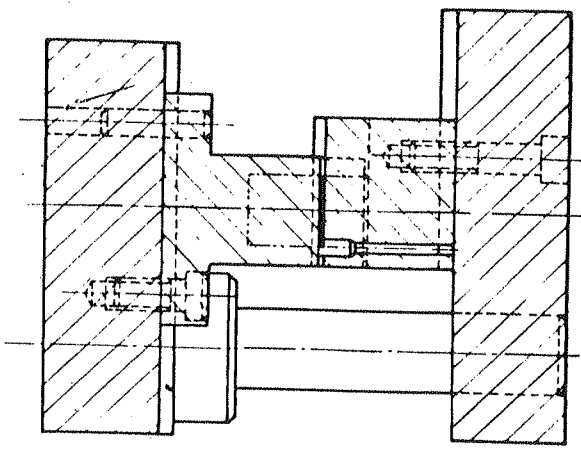
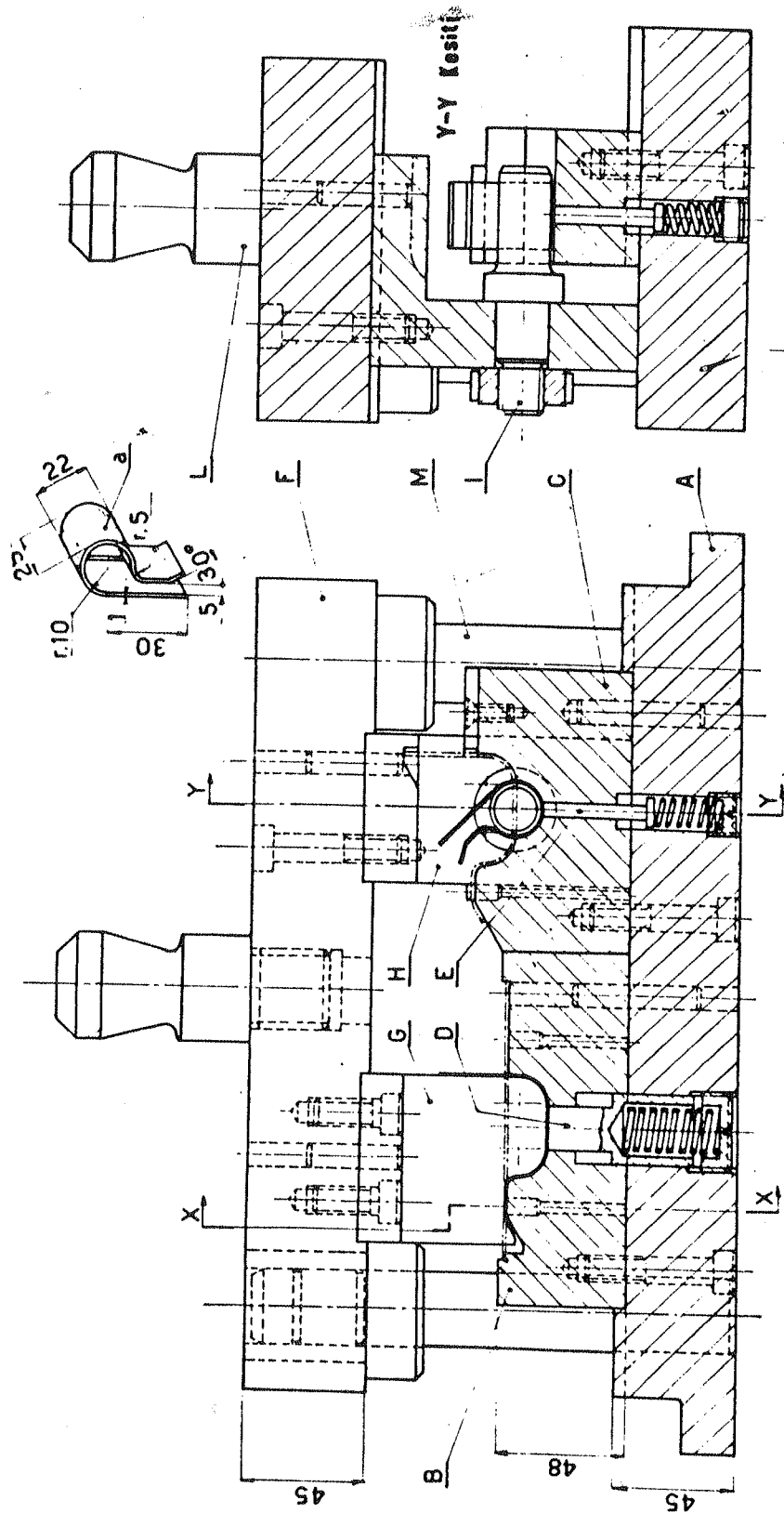


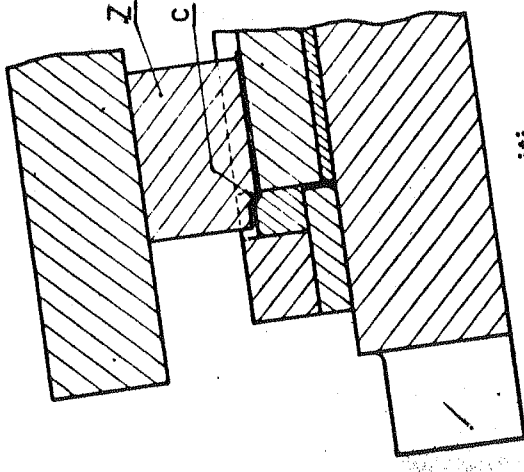
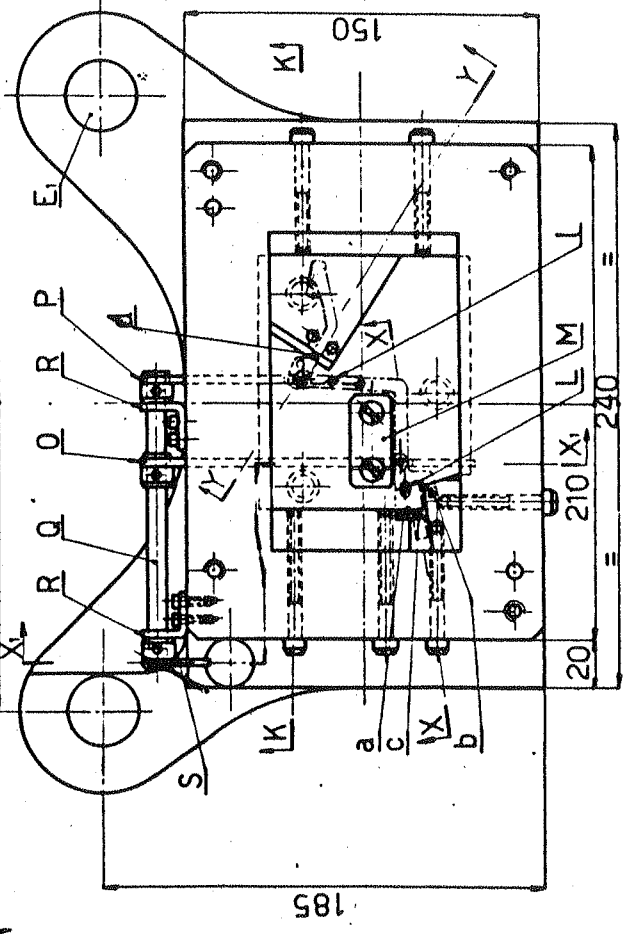
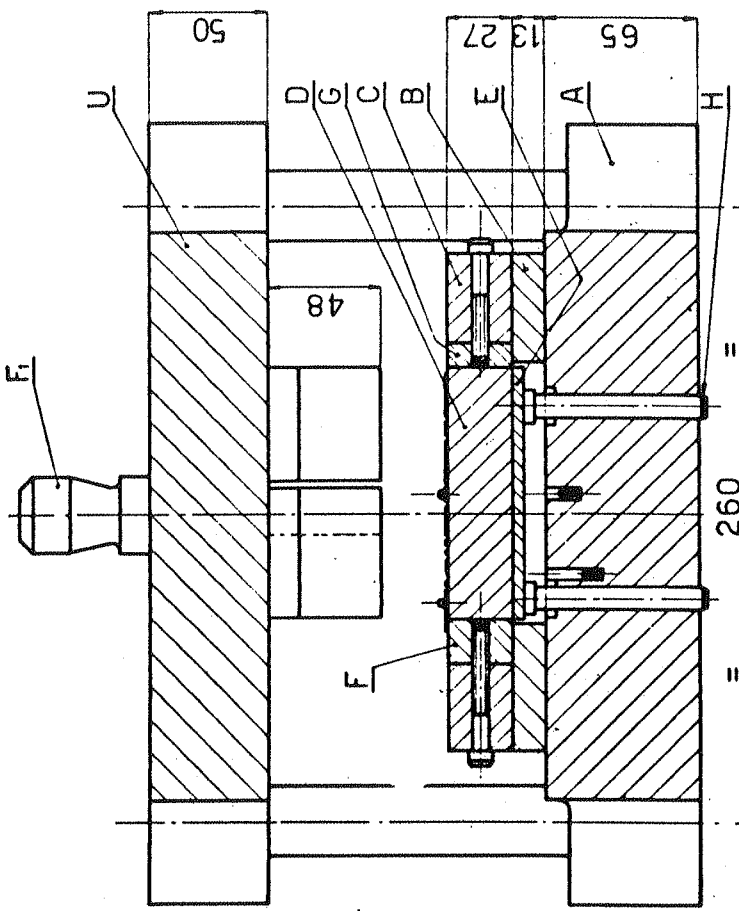
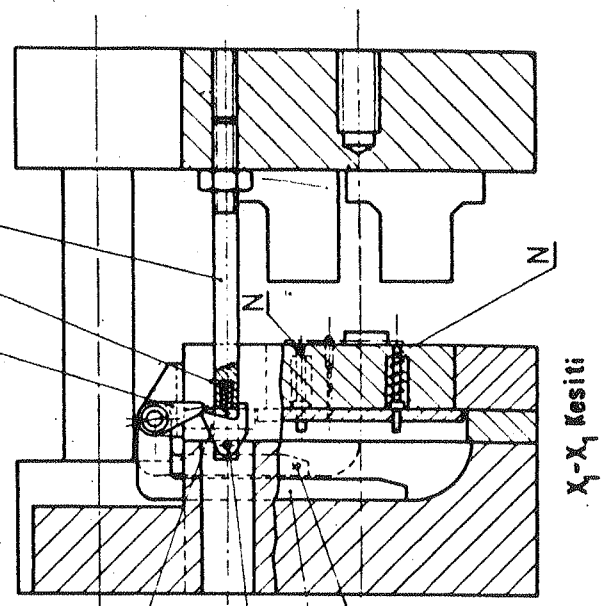
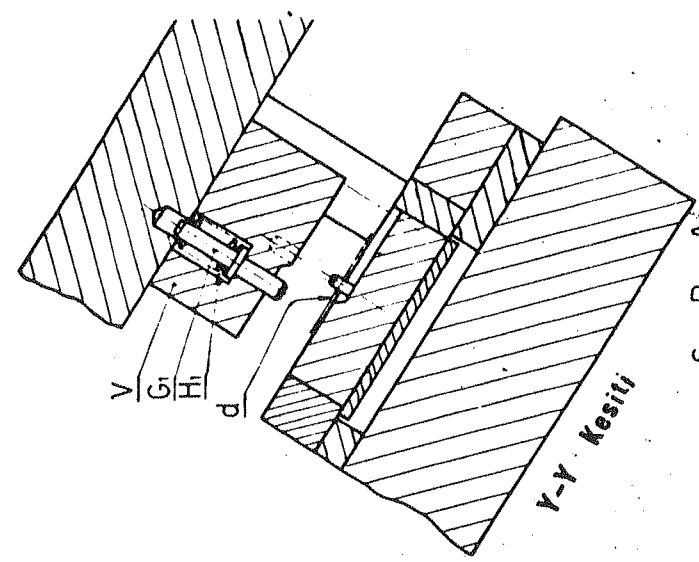
İmalı istenen parça

Kalınlık: 1

Parçanın açılımı

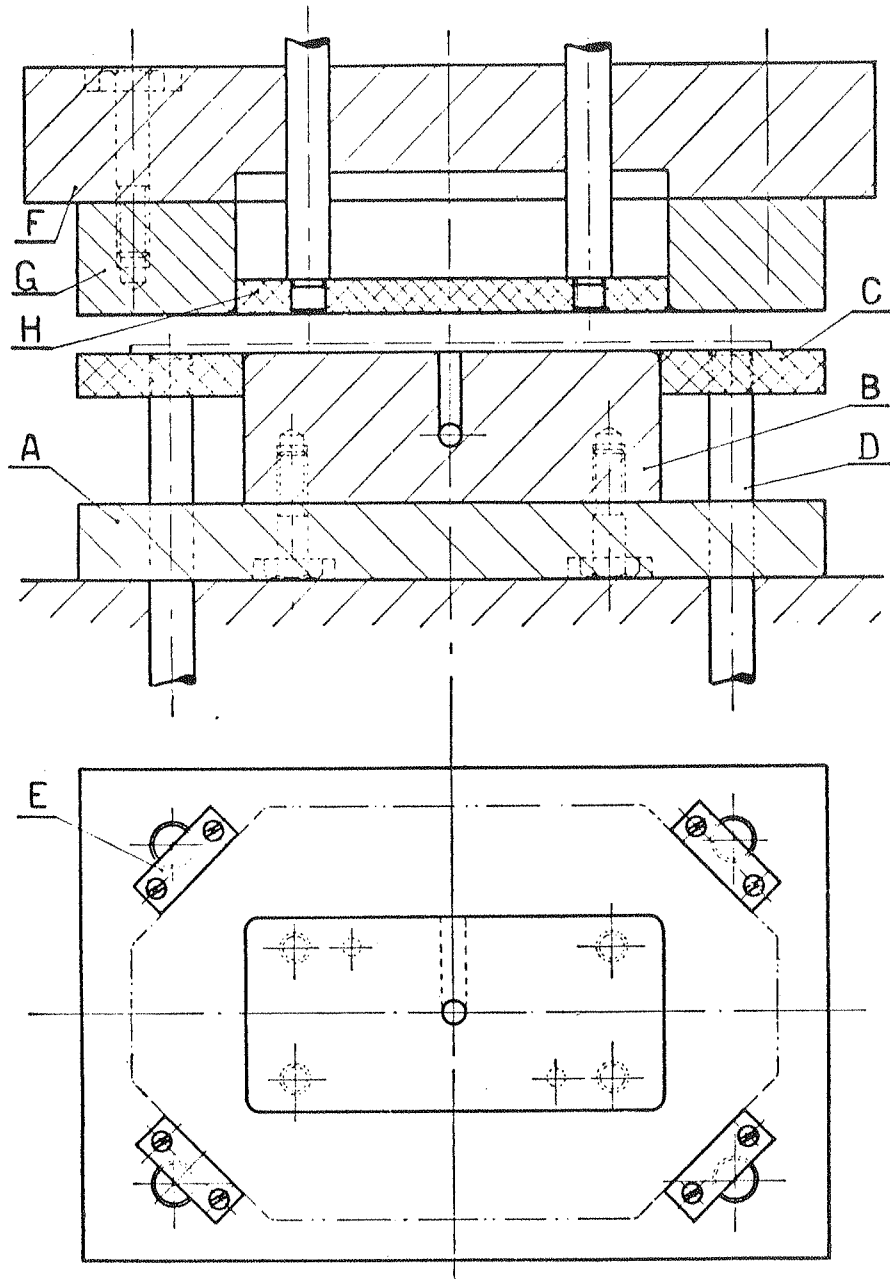
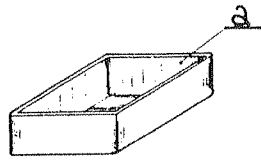


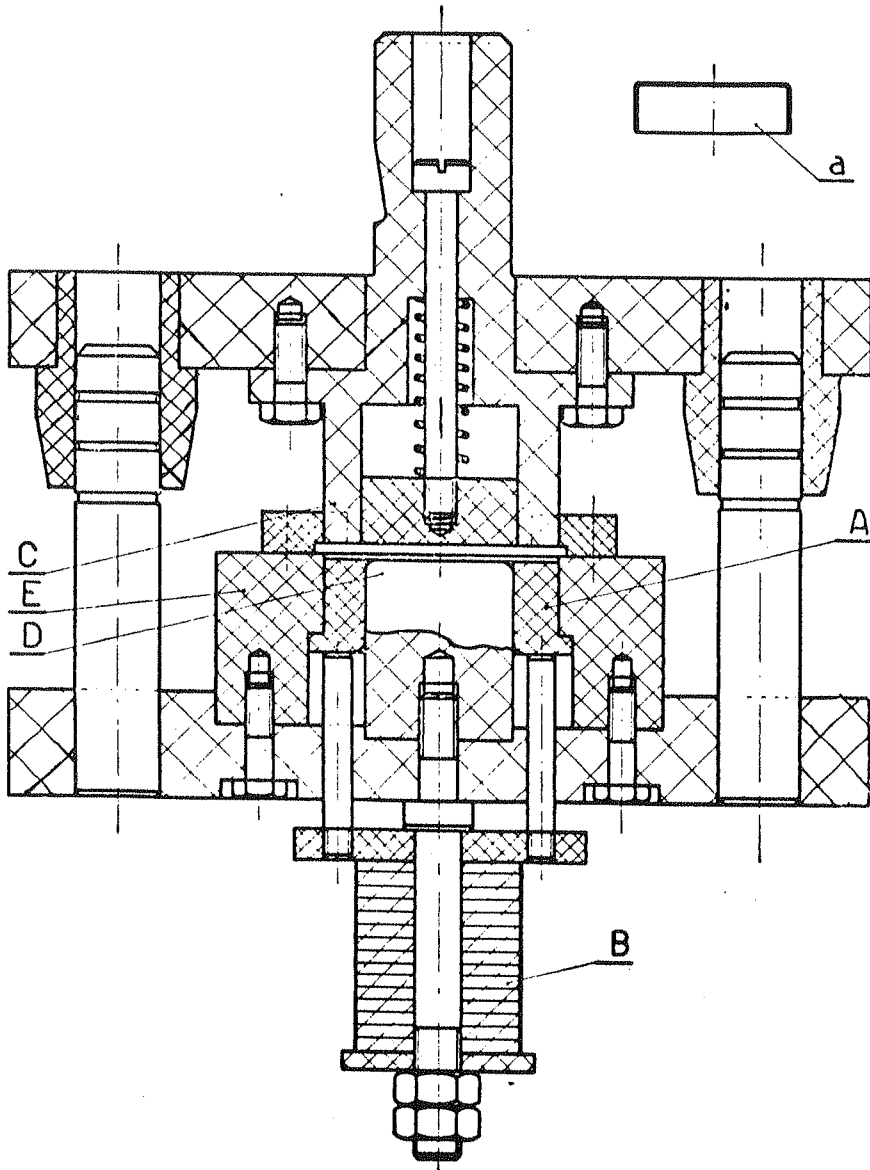


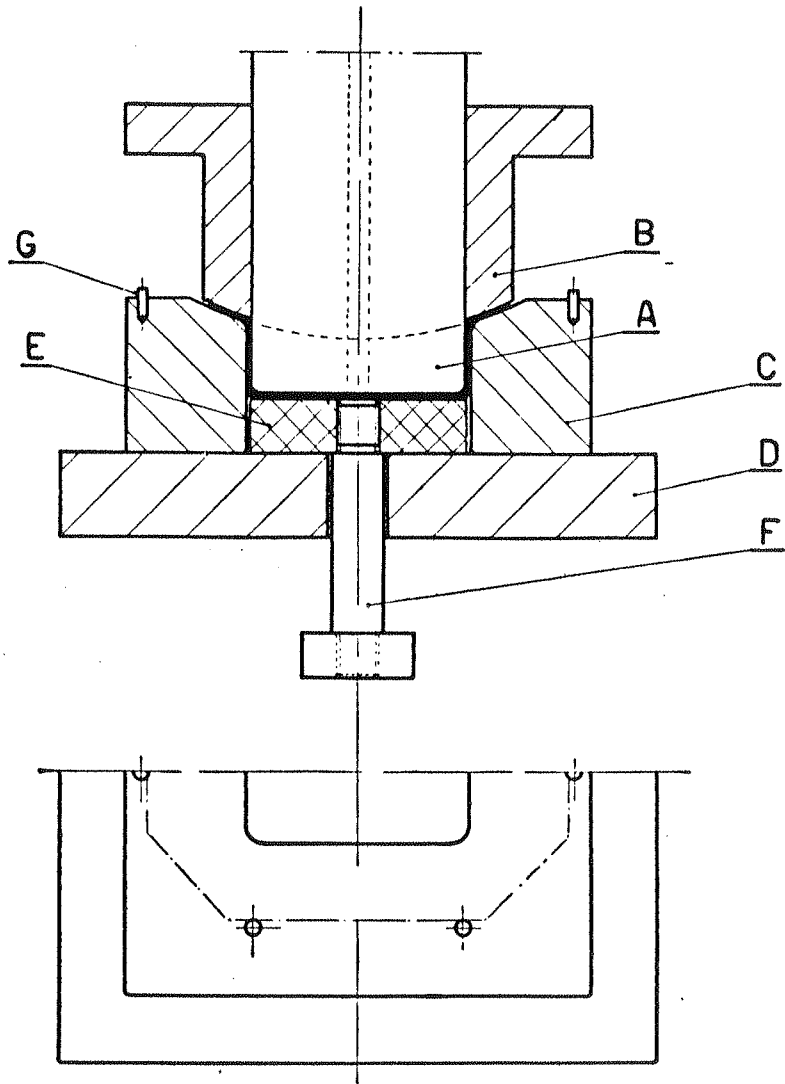
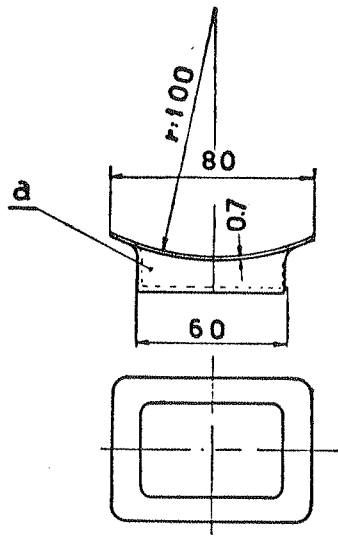


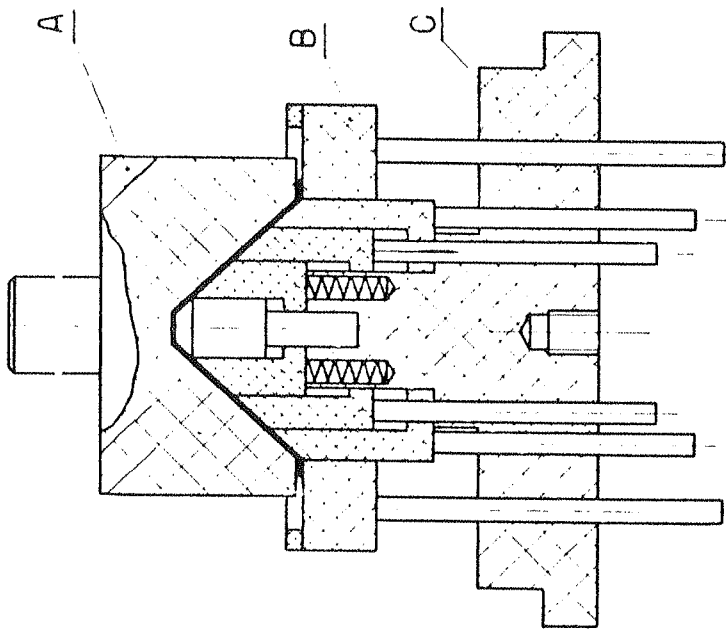
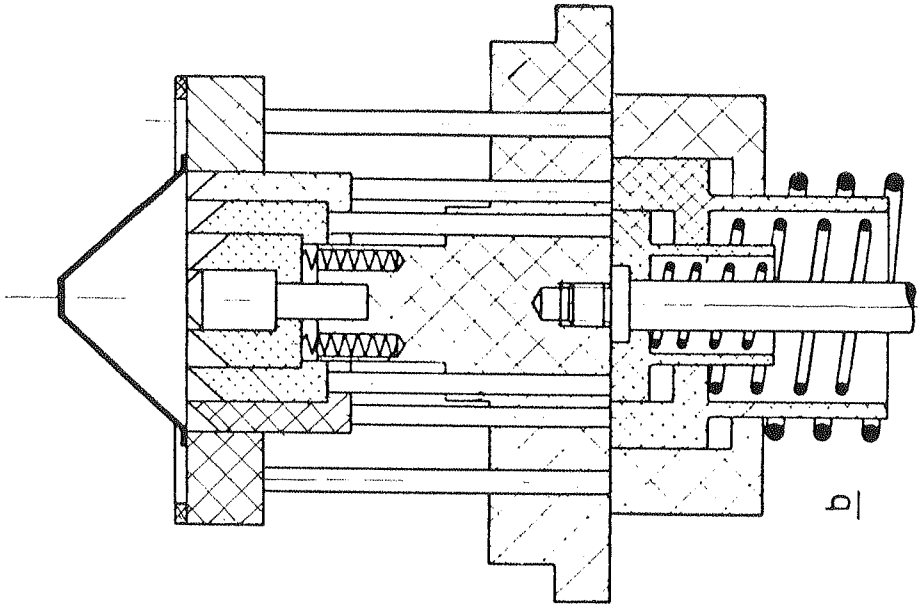
**EKME KALİPLARINA AİT  
ÖRNEKLER**

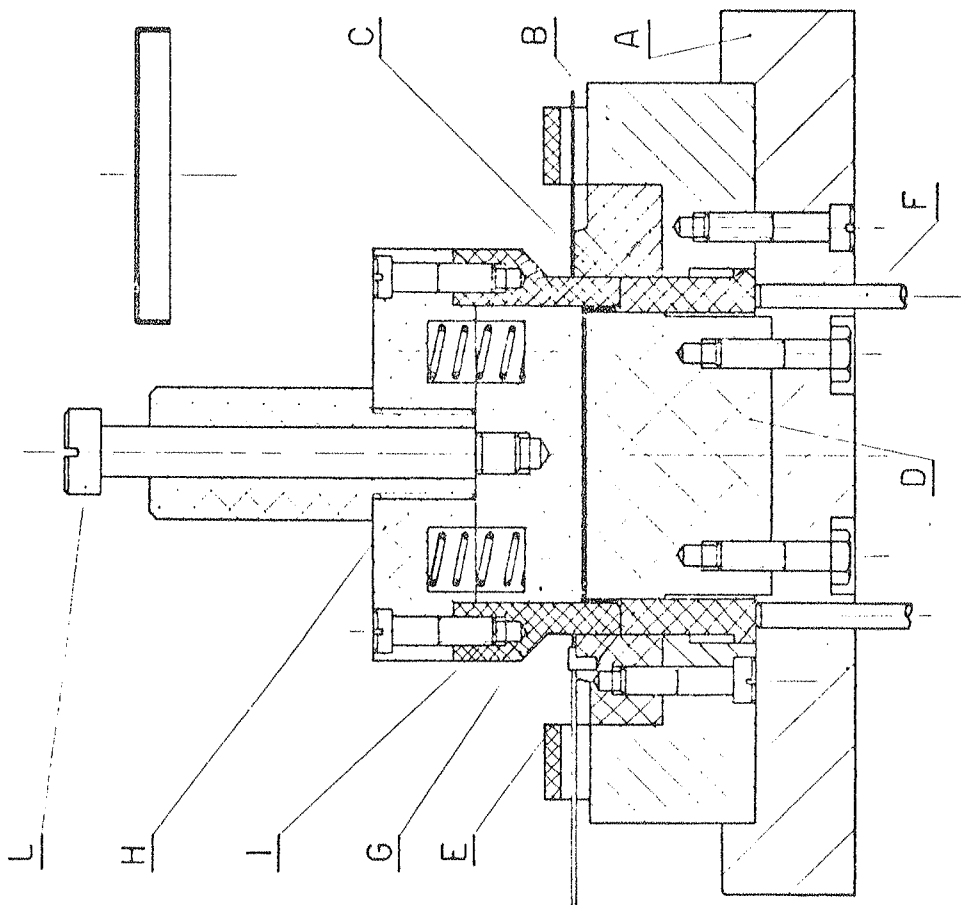
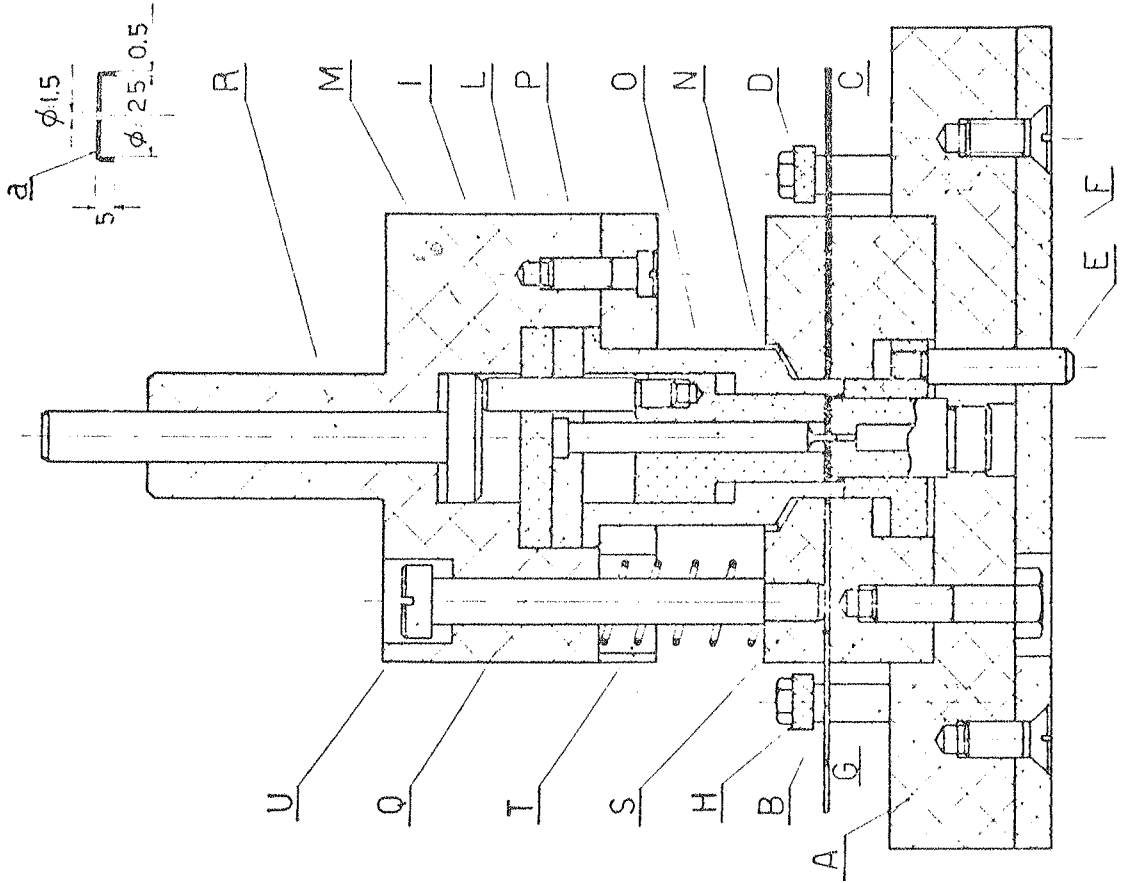


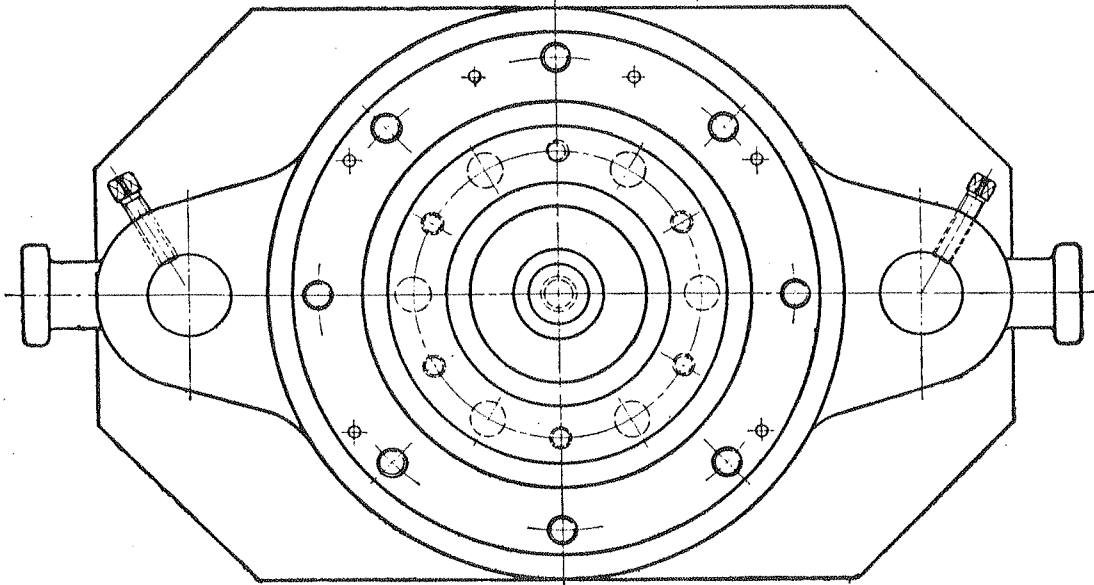
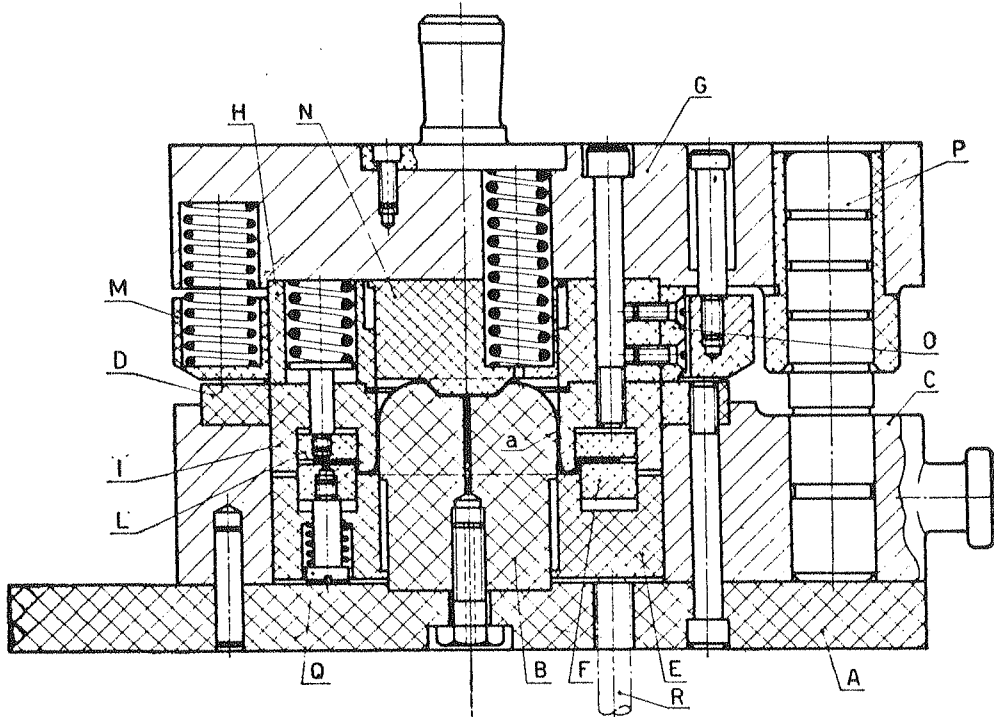
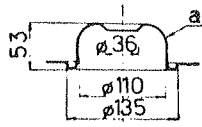


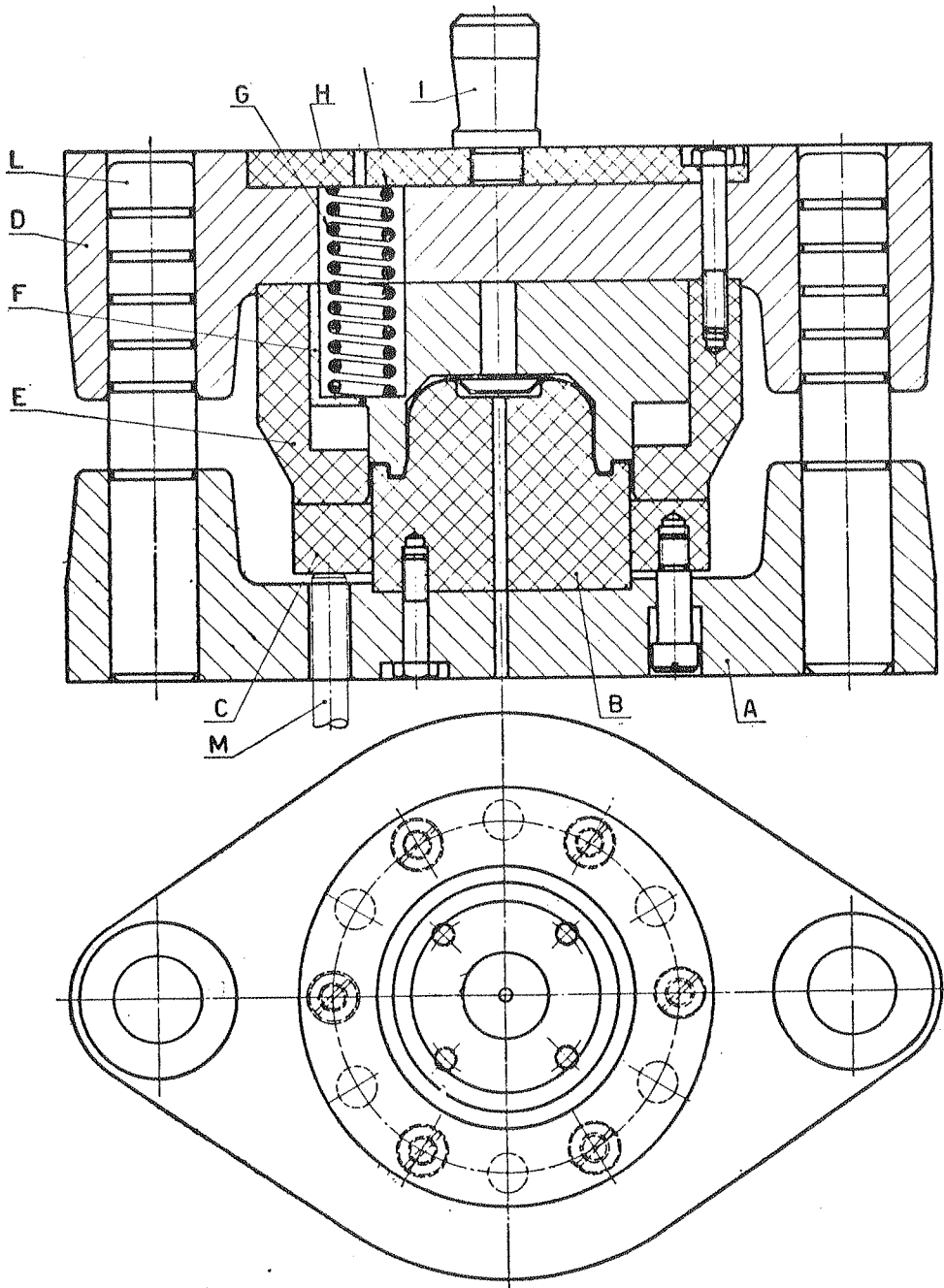
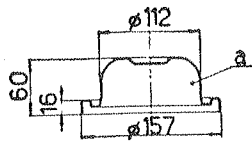




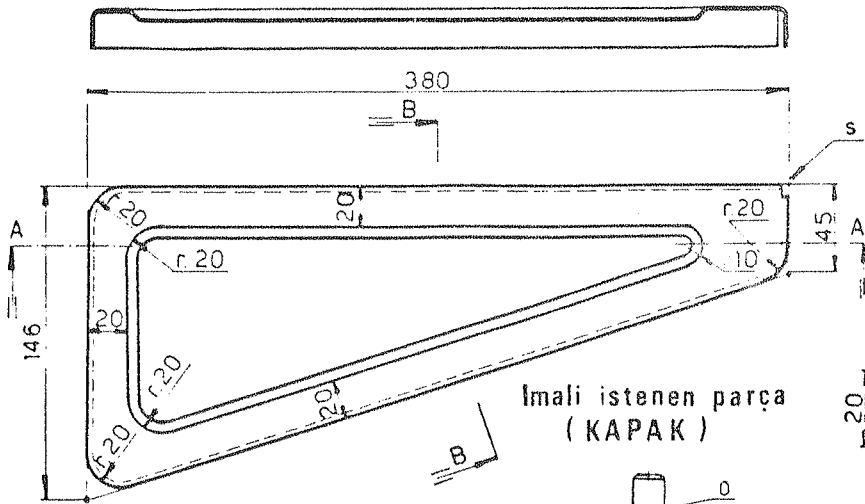




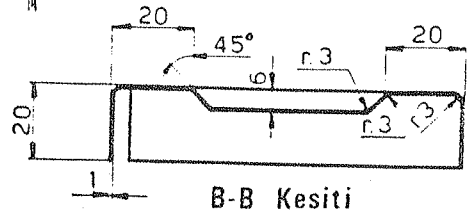




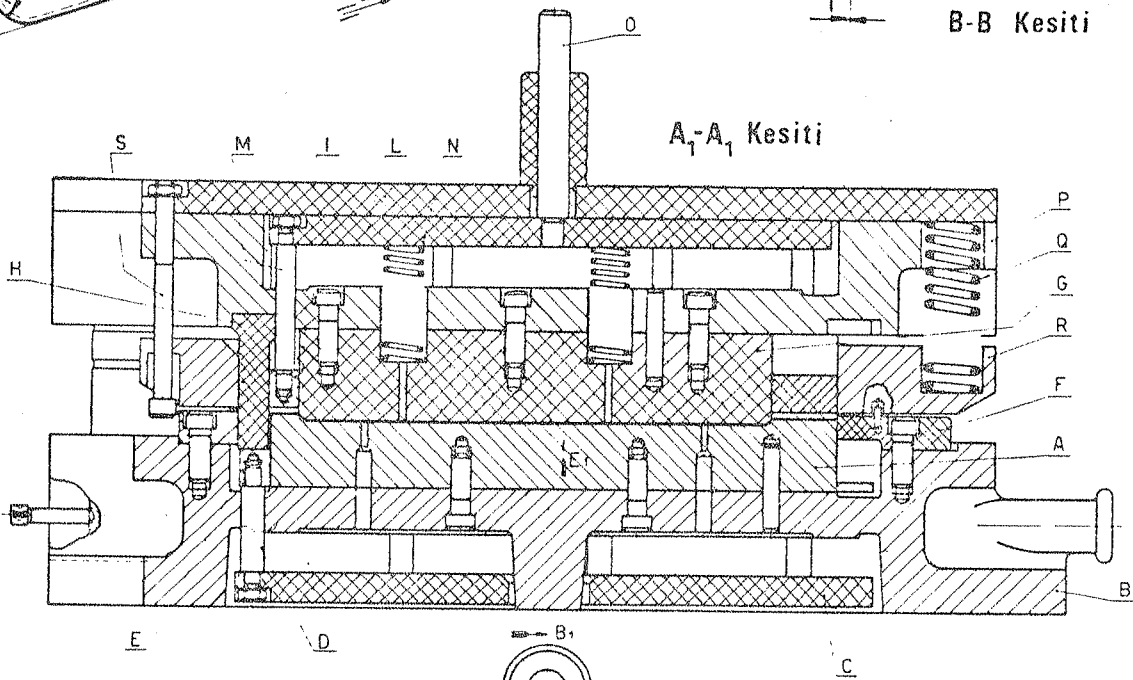
A-A Kesiti



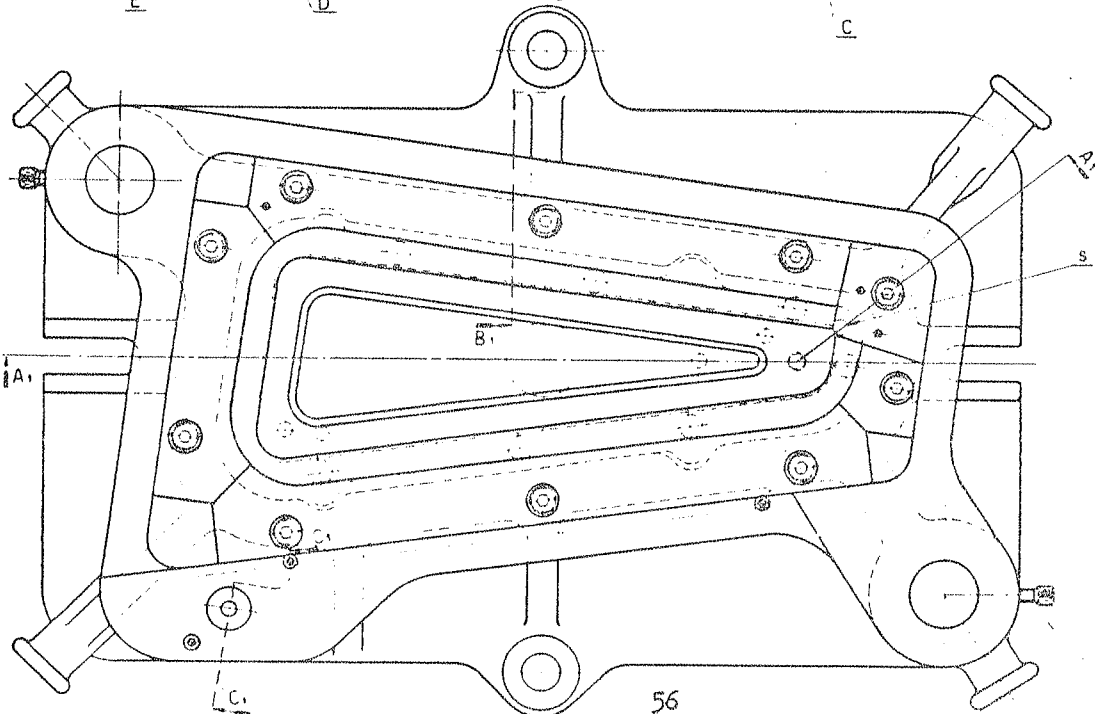
Imali istenen parça  
(KAPAK)



B-B Kesiti

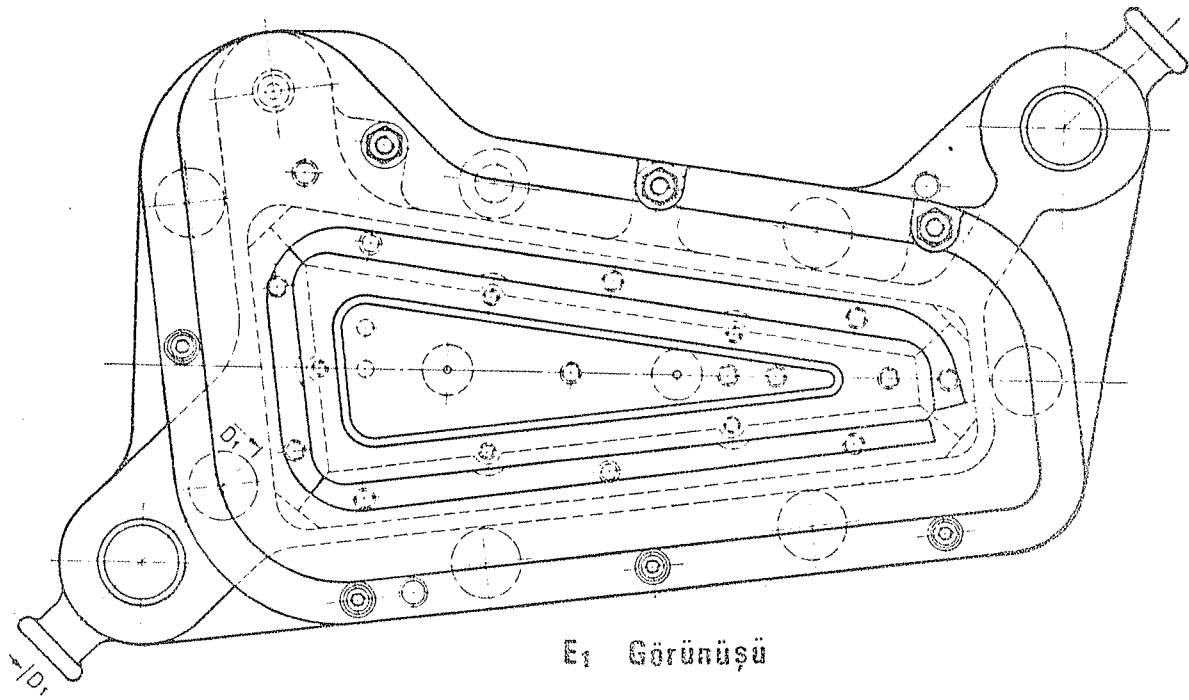
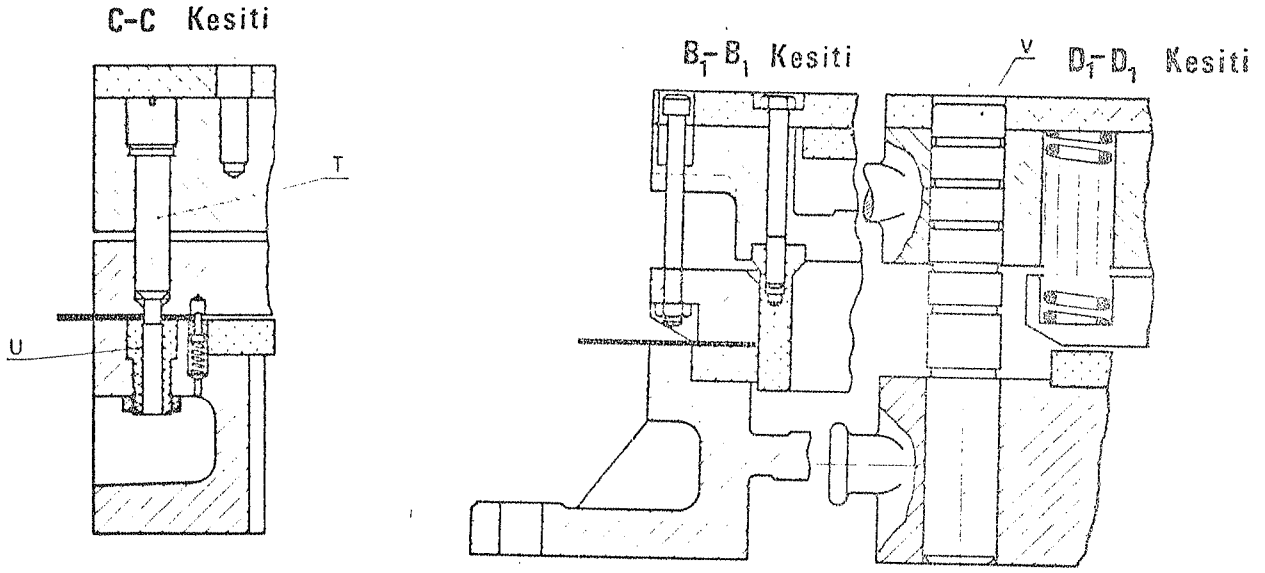


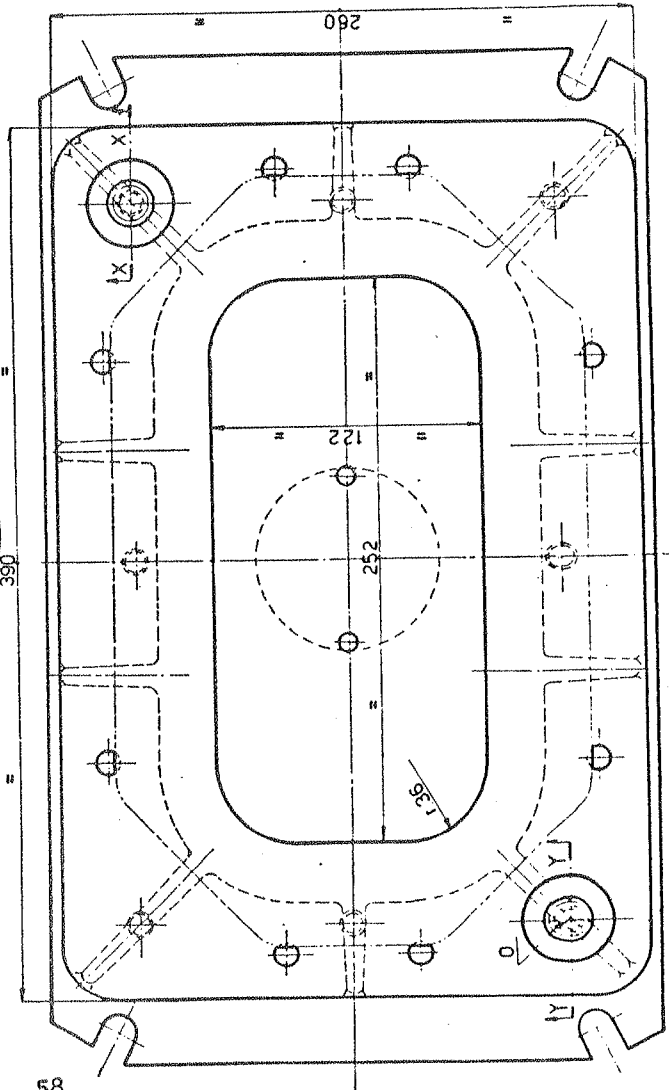
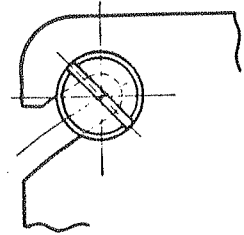
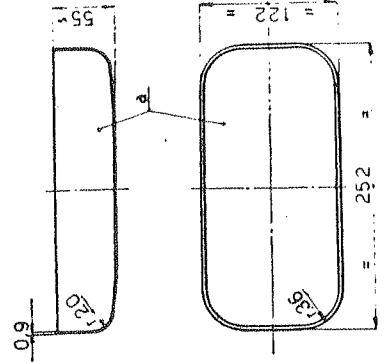
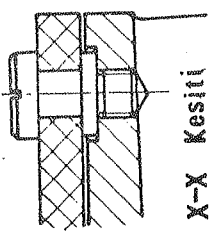
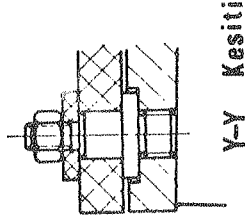
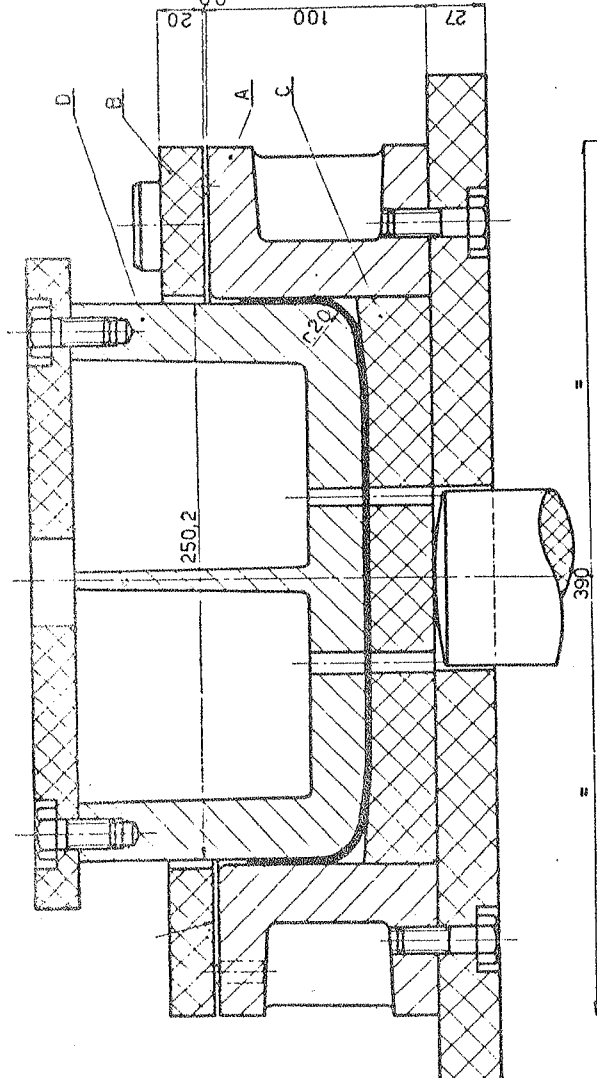
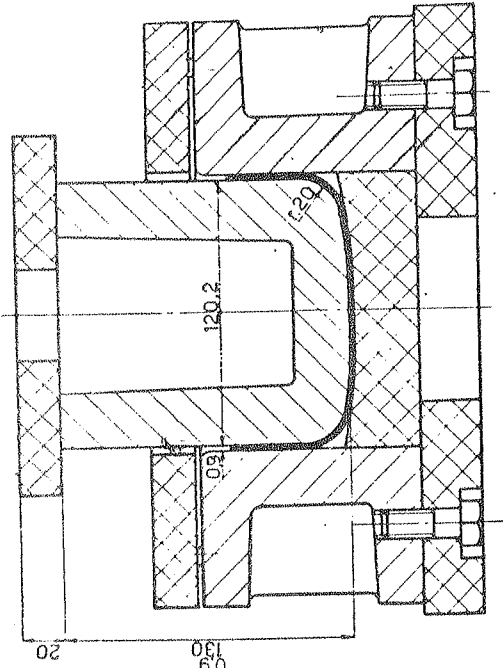
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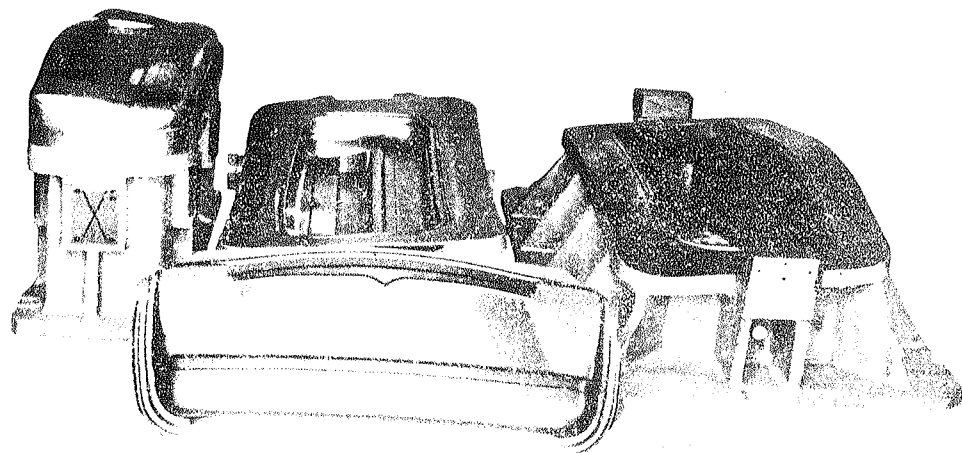
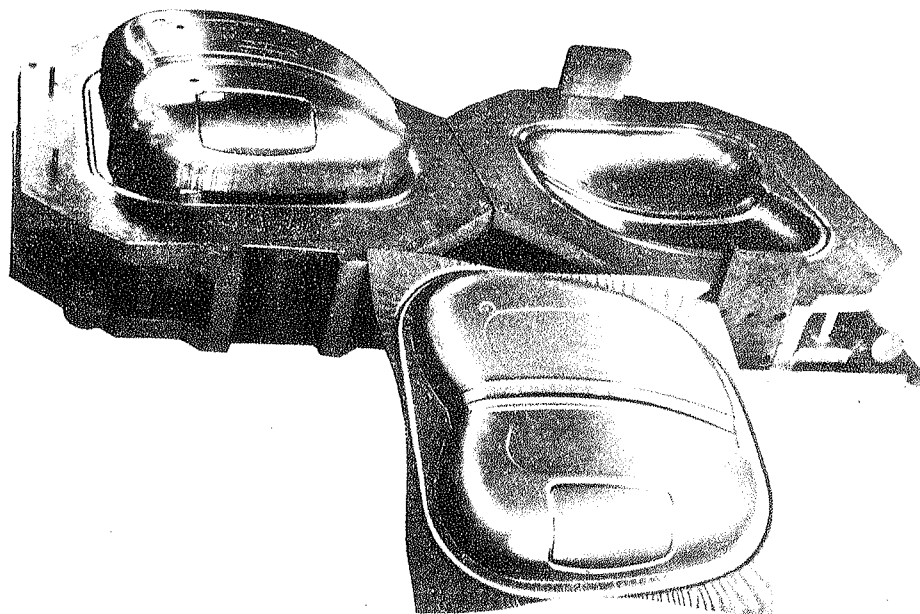
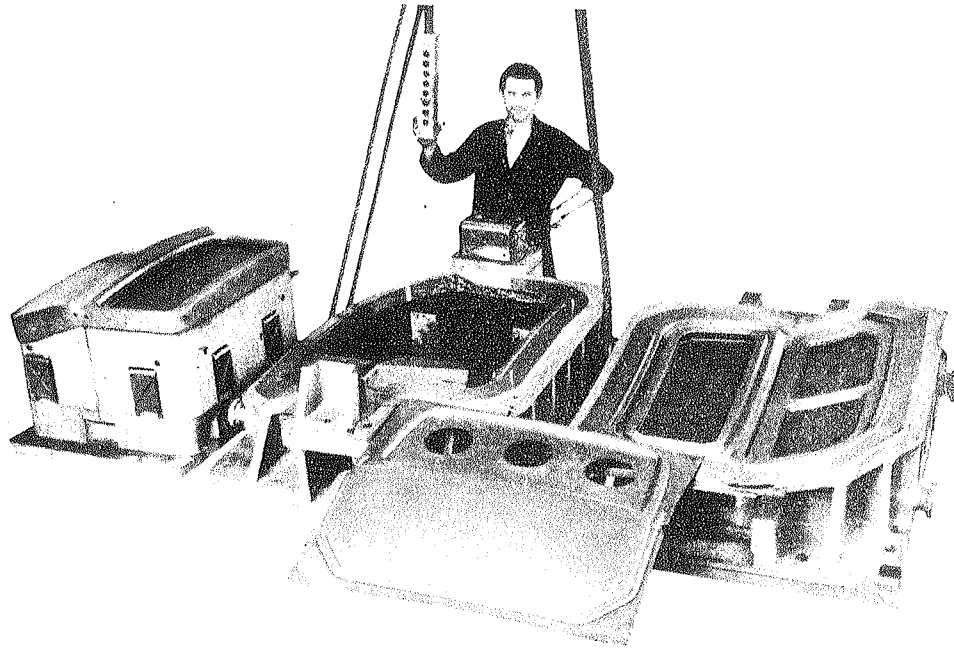


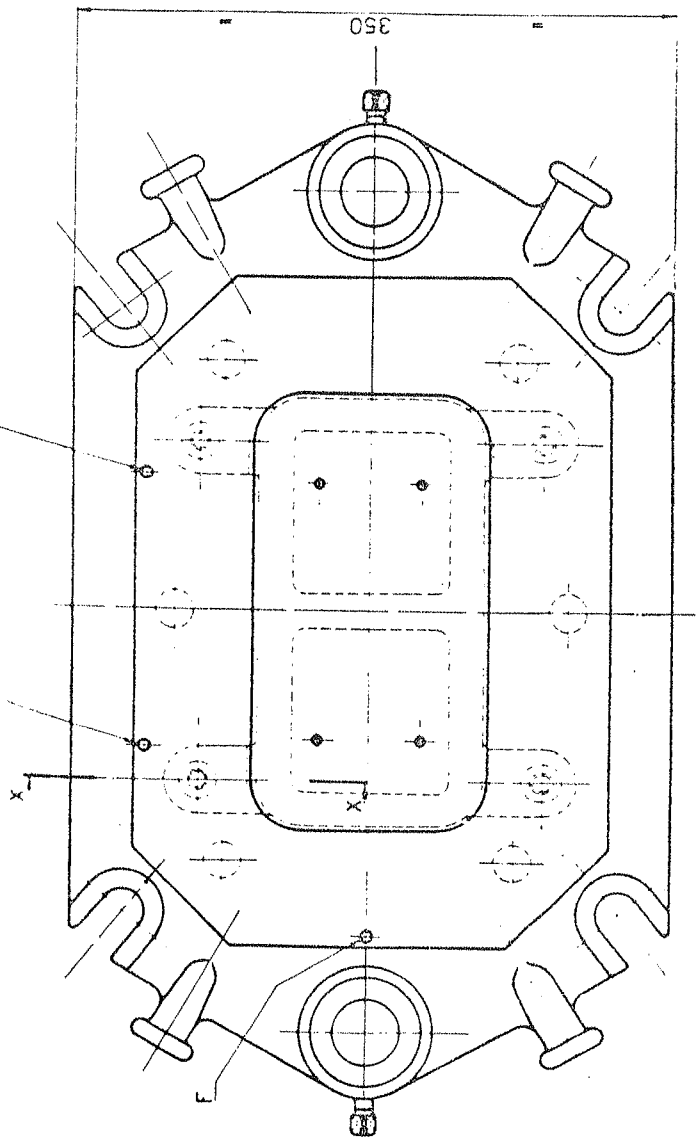
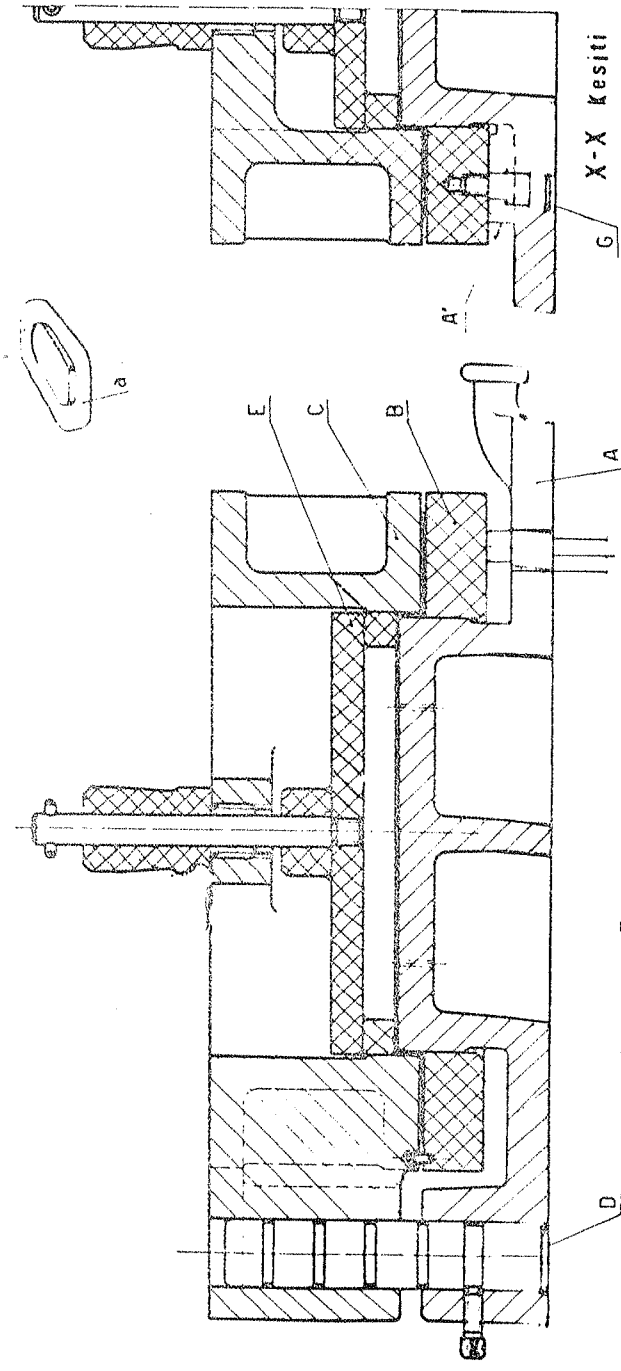


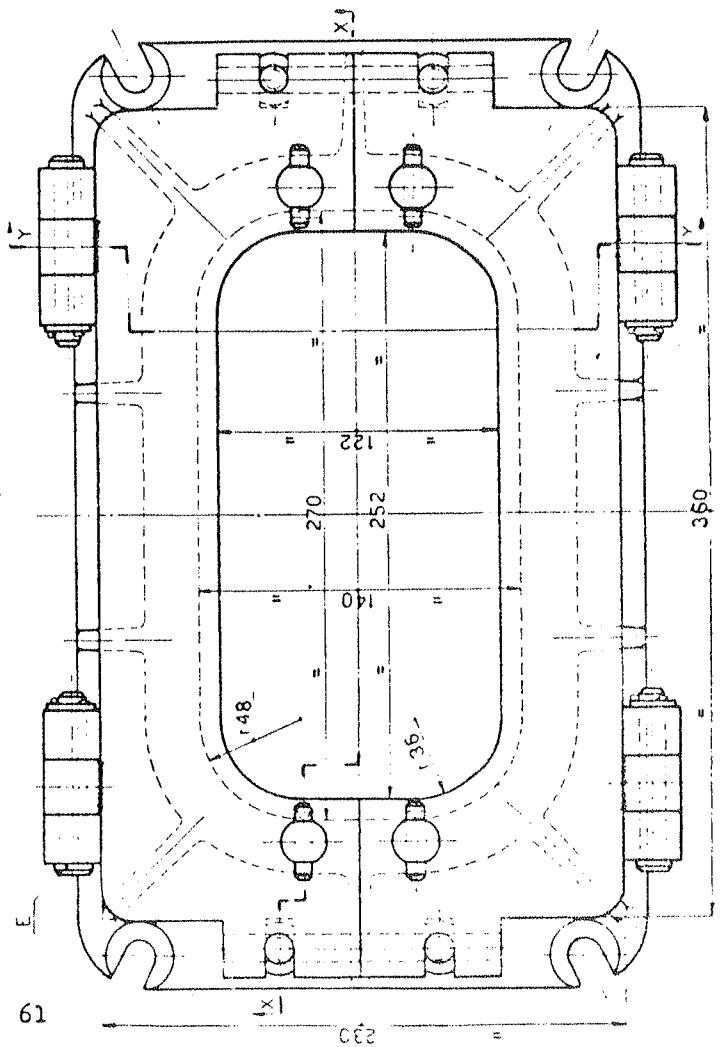
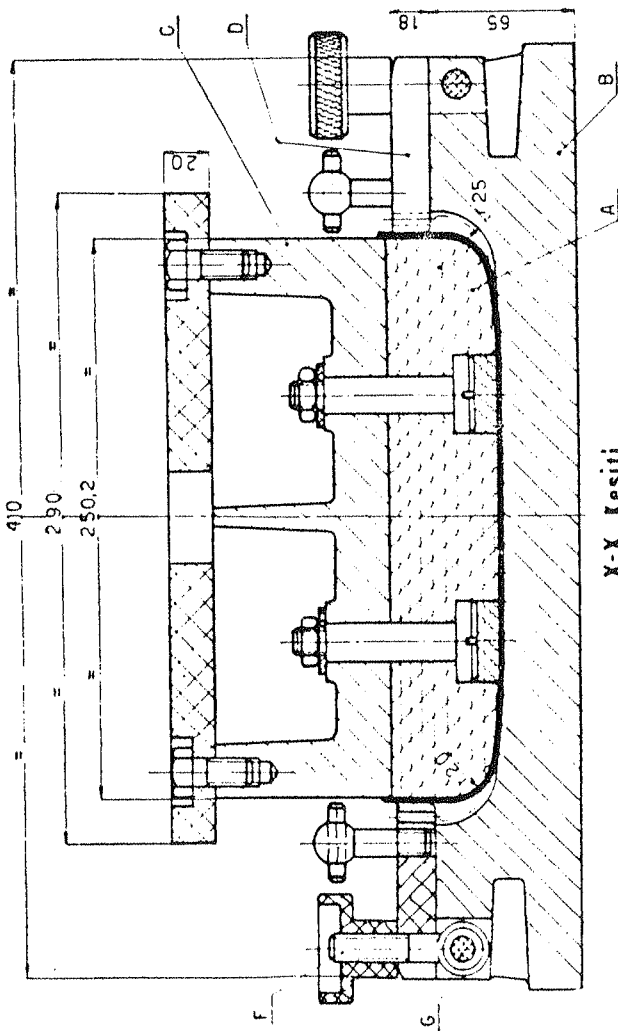
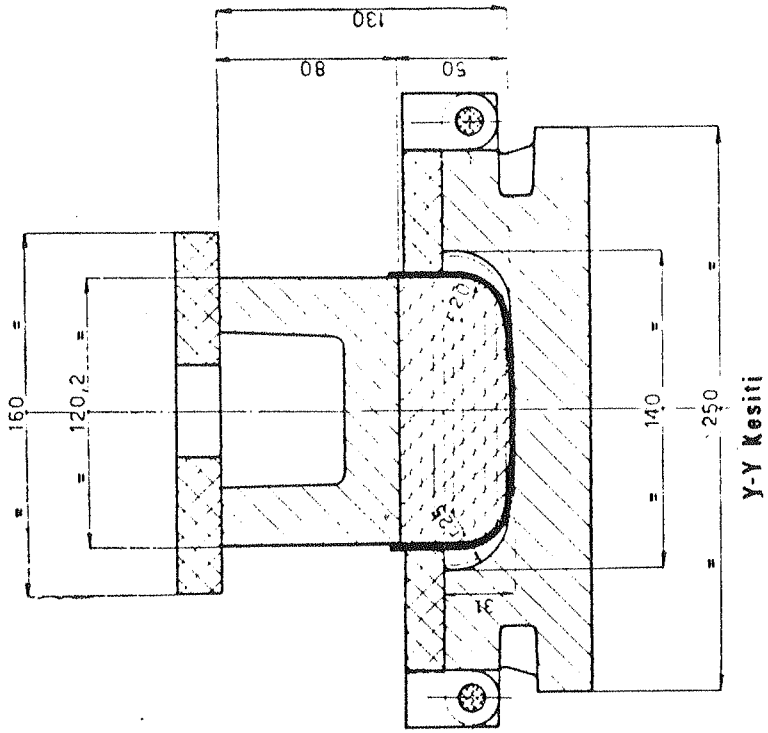
KAPAK Parçasına ait kalbın diğer kesit görünümleri

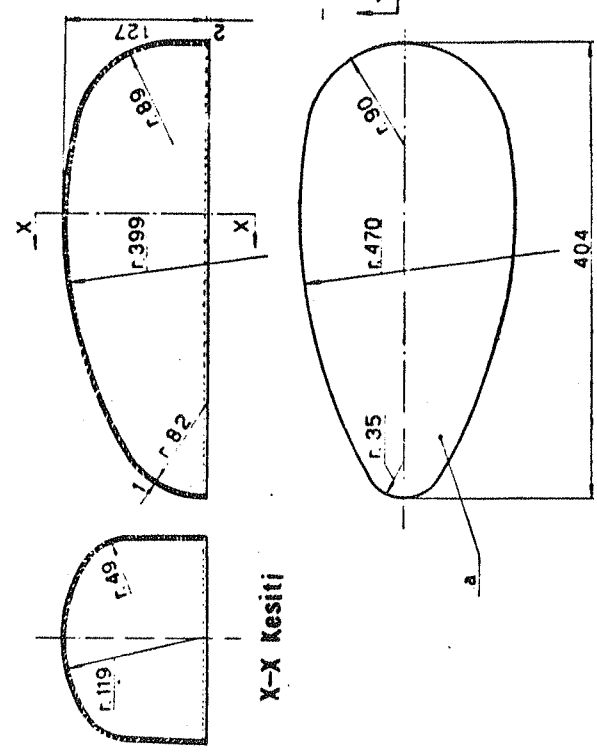
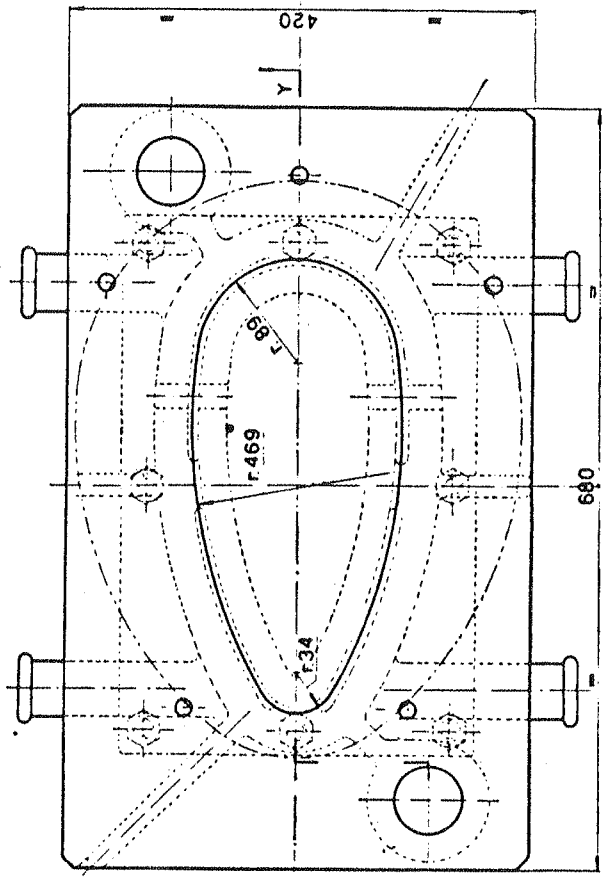
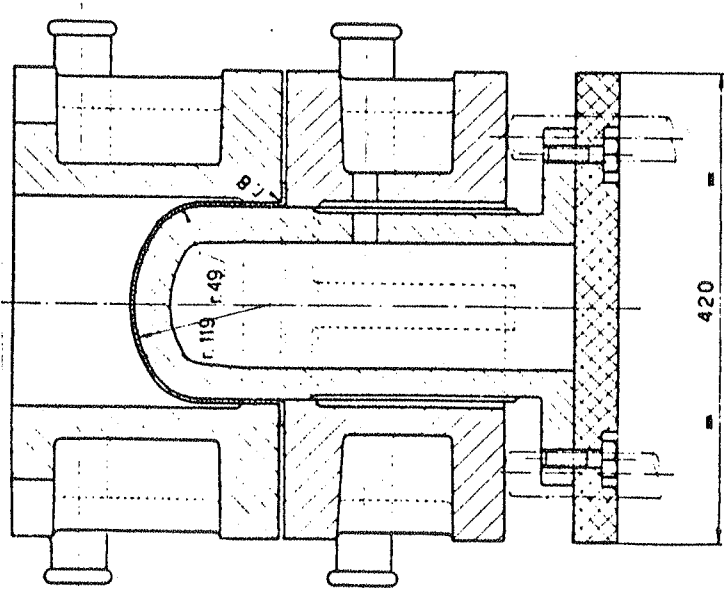
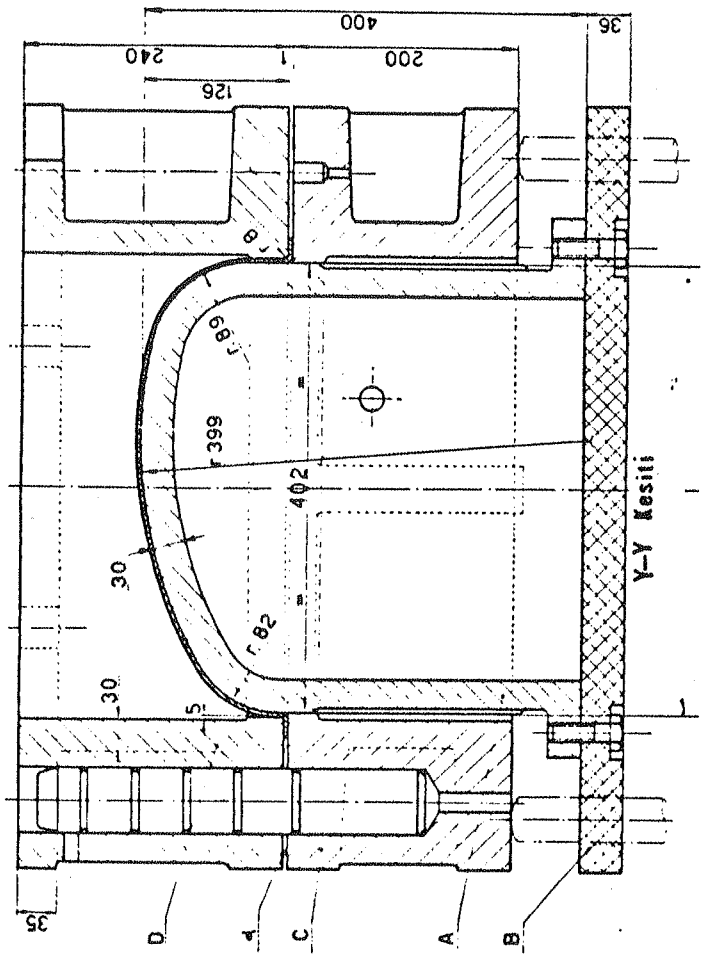




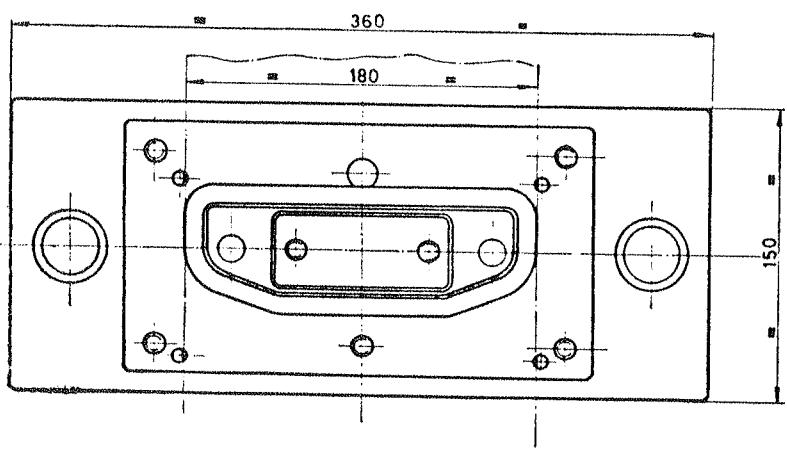
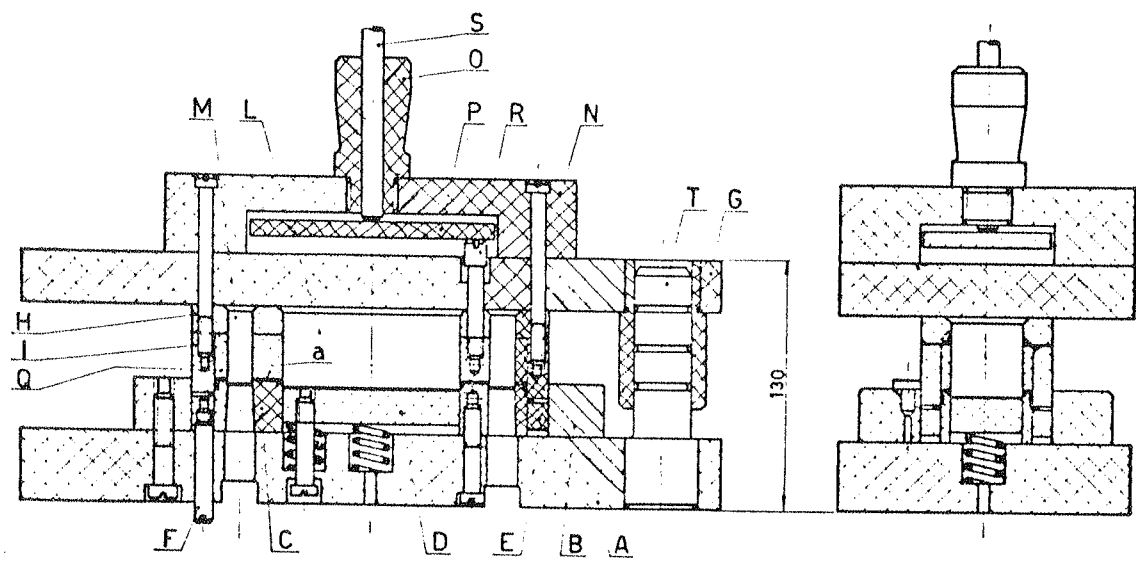
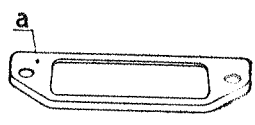




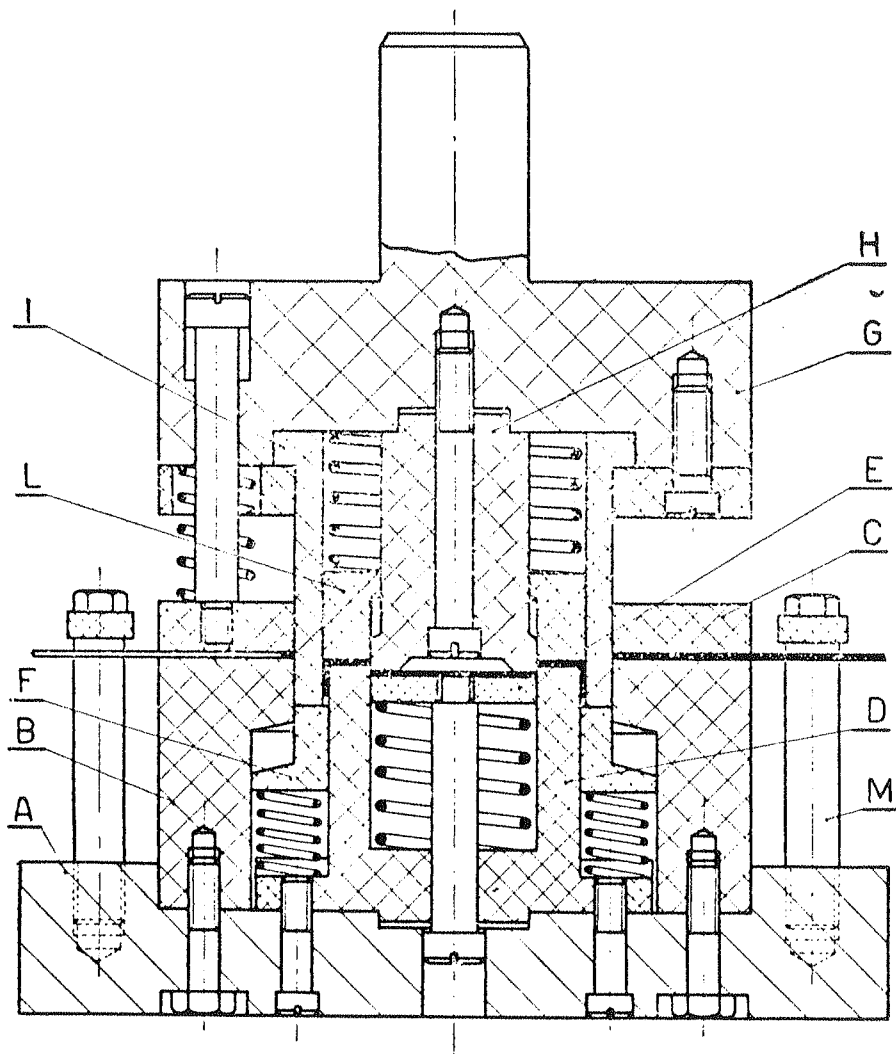


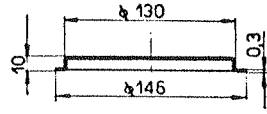


**BİRLEŐİK ÇEKME VE BİRLEŐİK DELME KALIPLARINA  
AİT ÖRNEKLER**

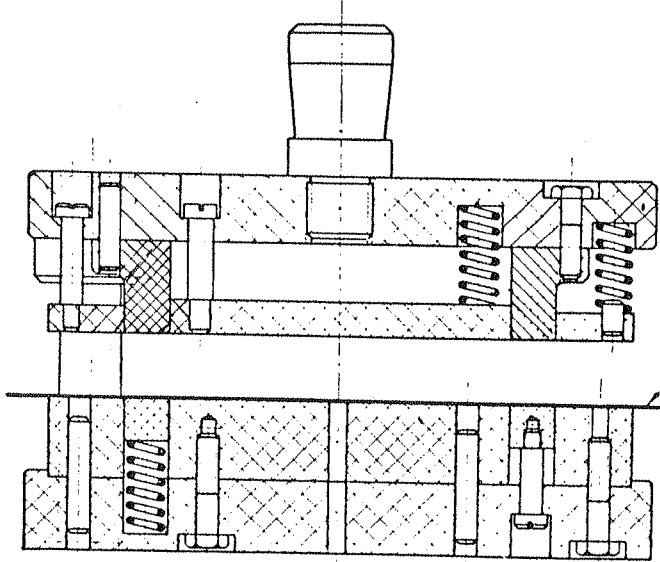






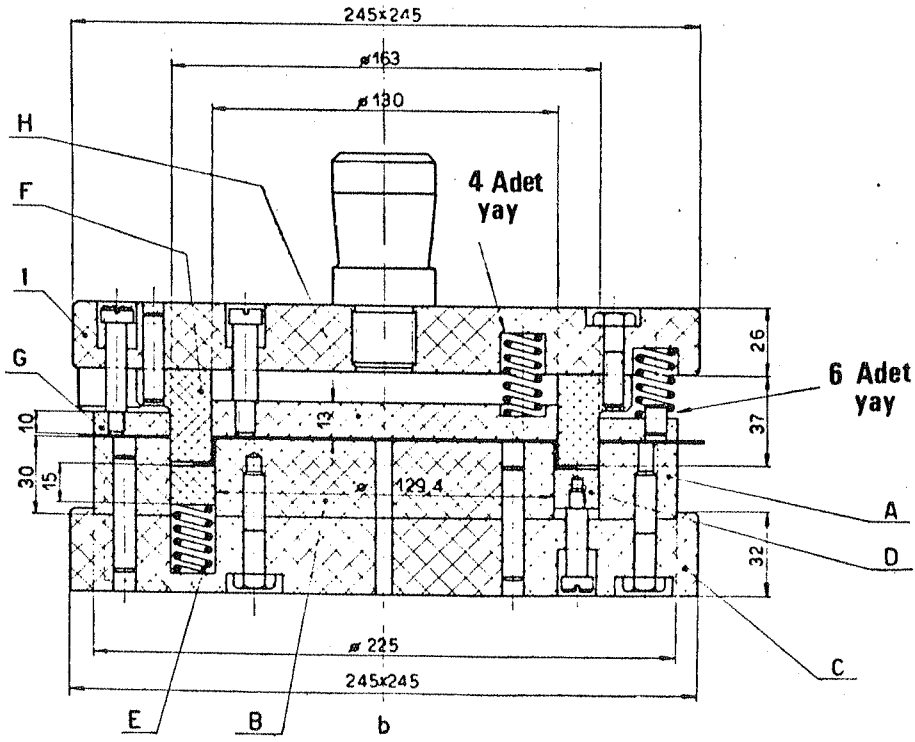


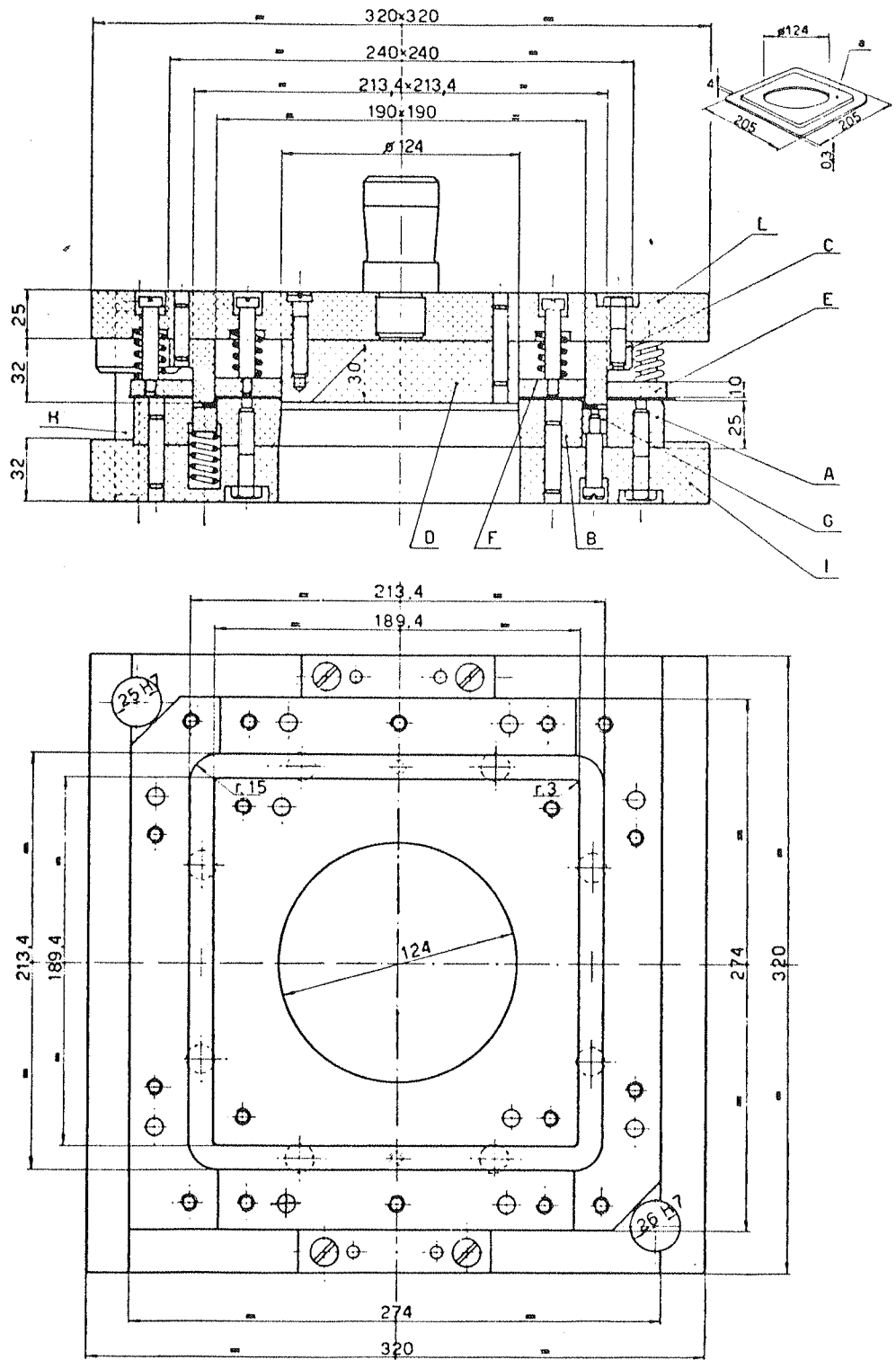
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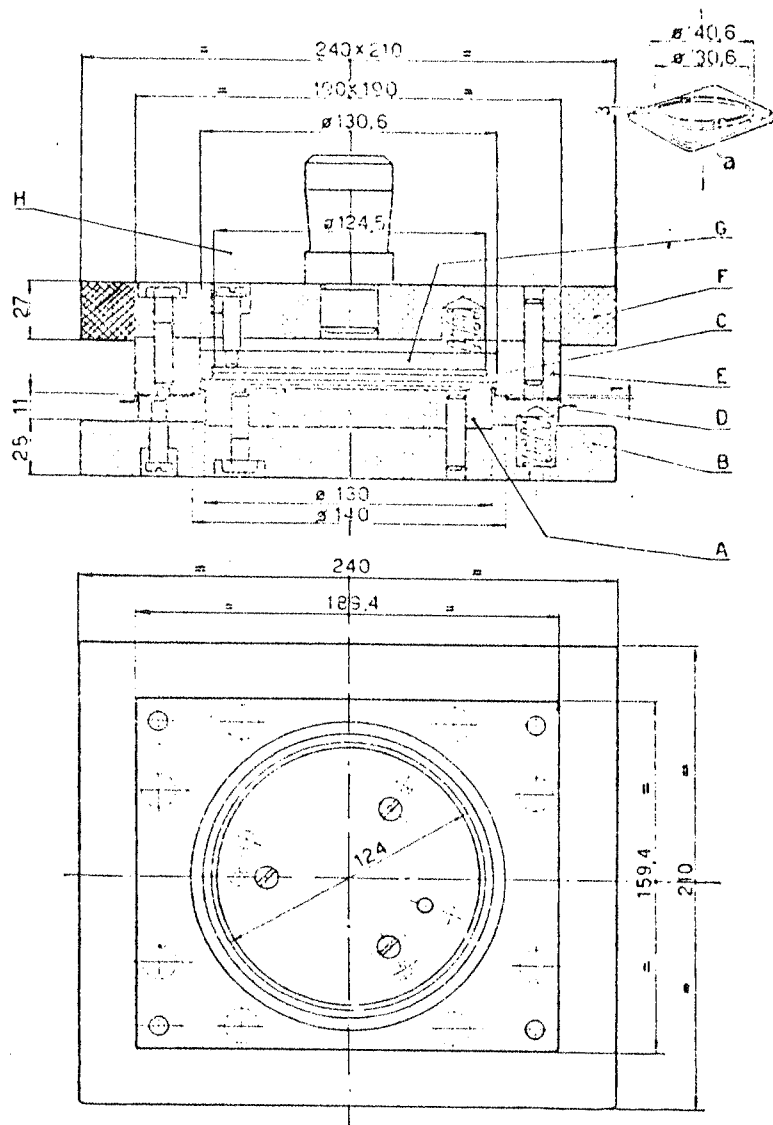


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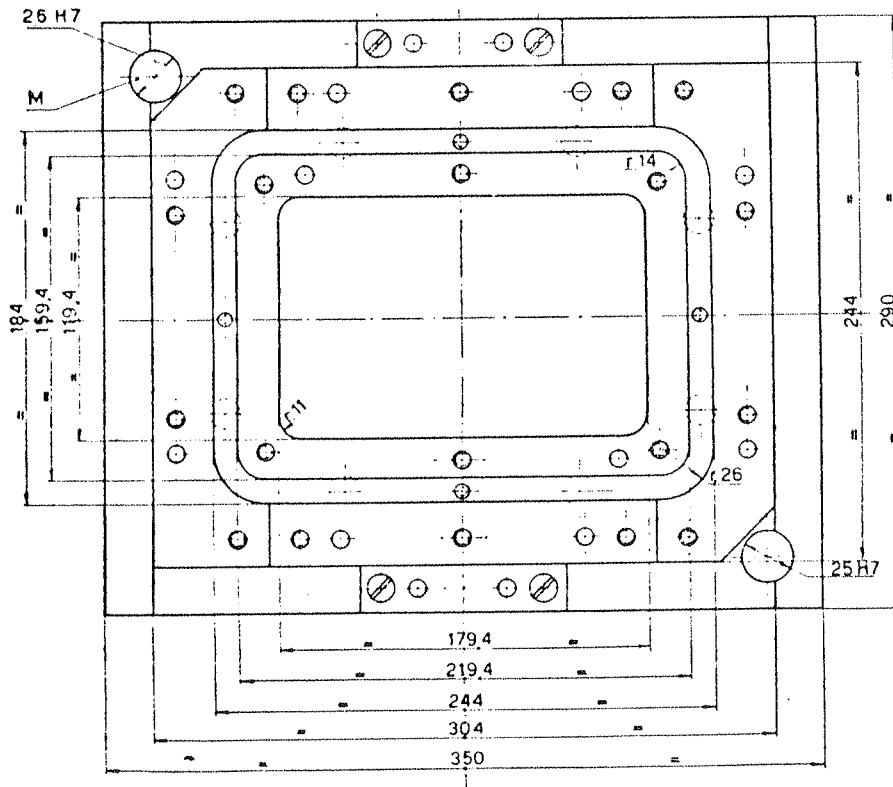
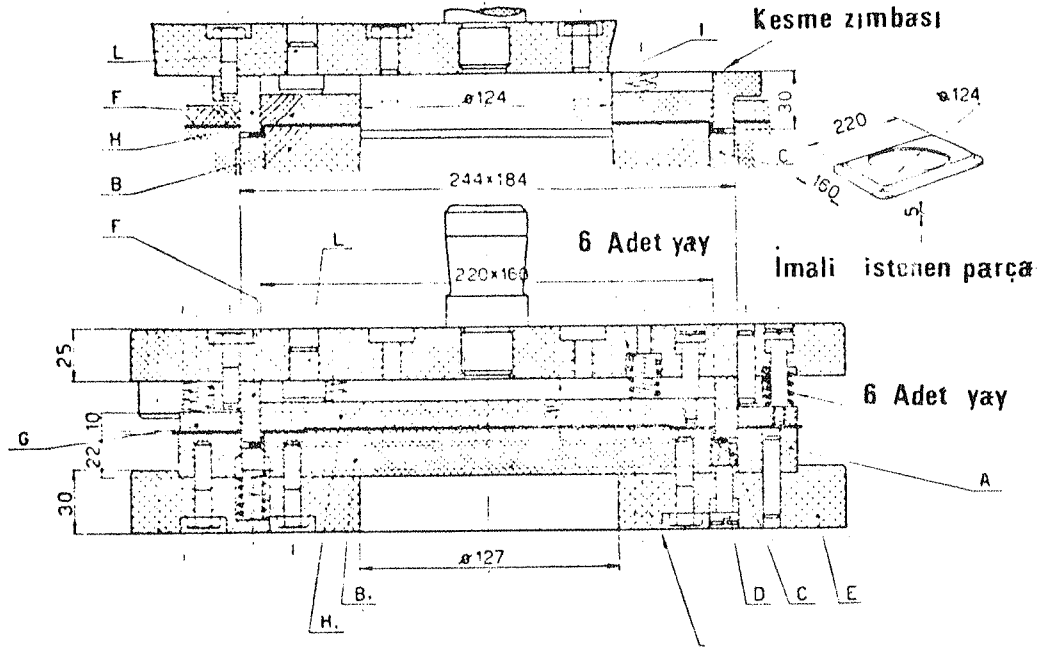
Çevresi kesilip çekilecek şerit sac

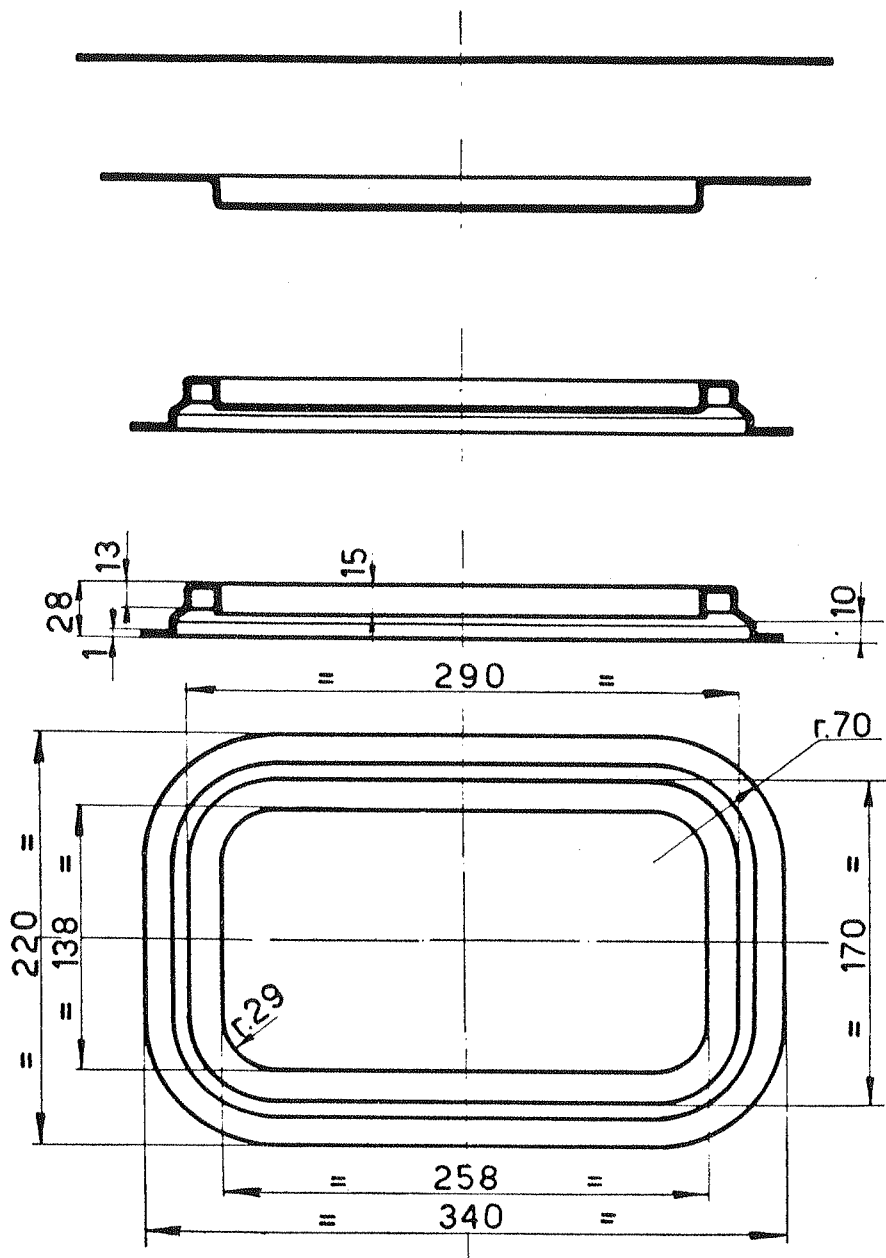


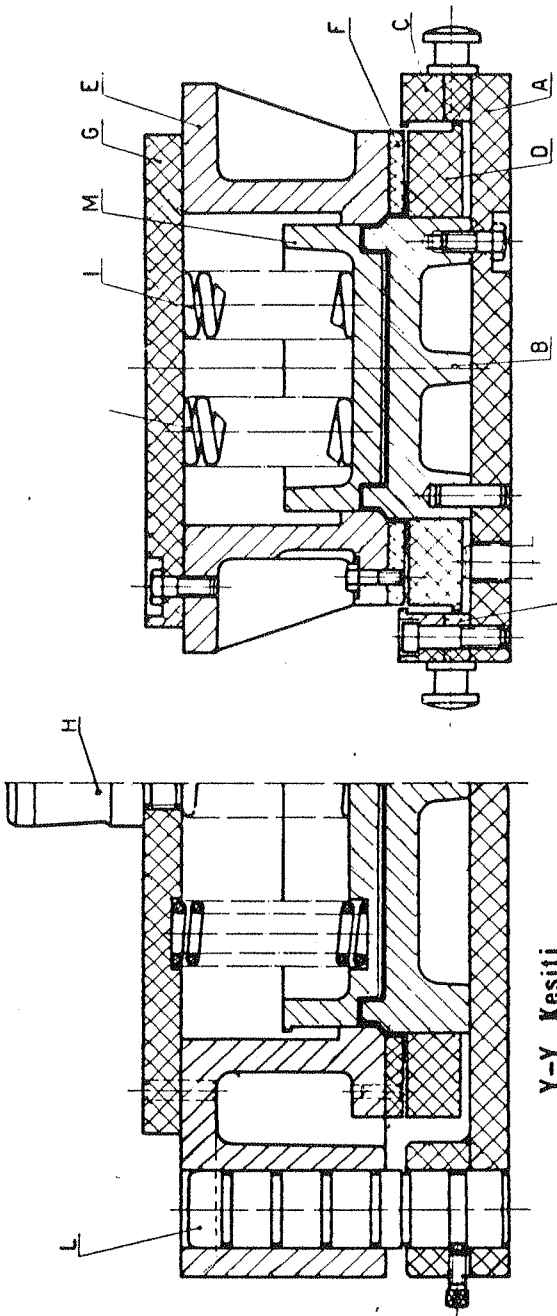




## KALINLIĞI 0.3mm OLAN PARÇAYA AİT KALIP



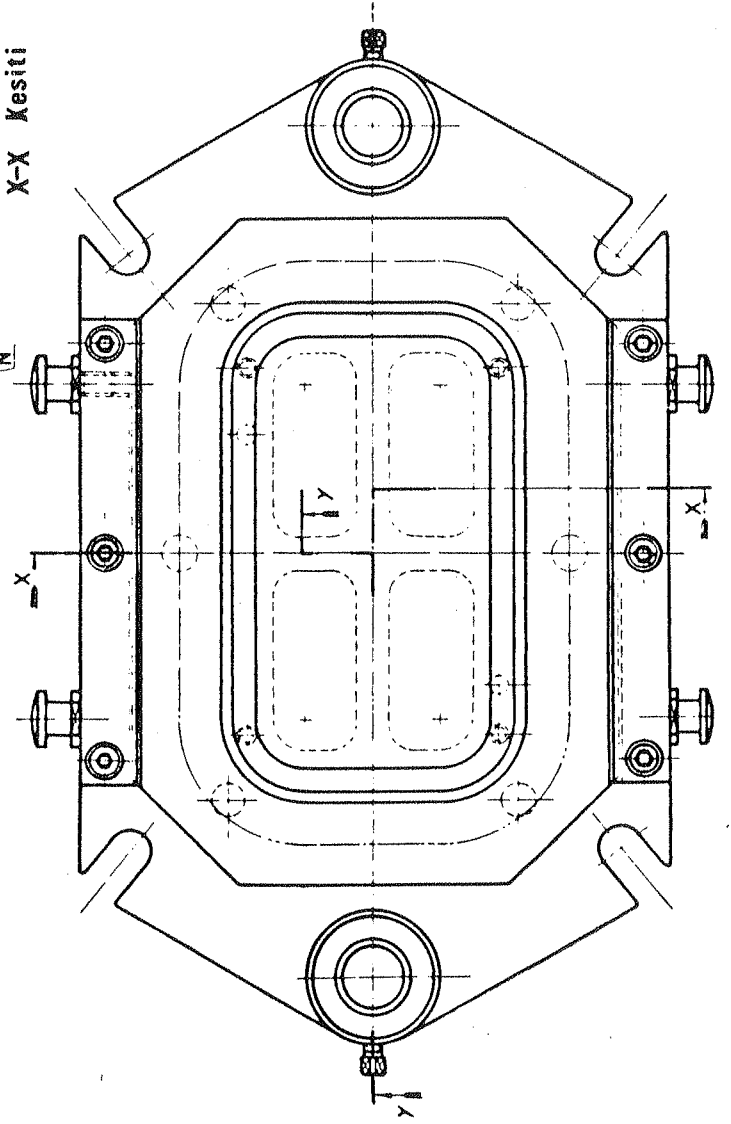


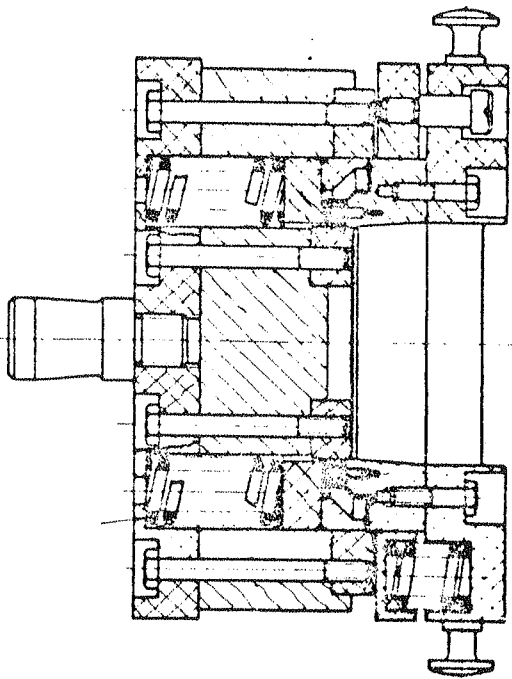


Y-Y Kesiti

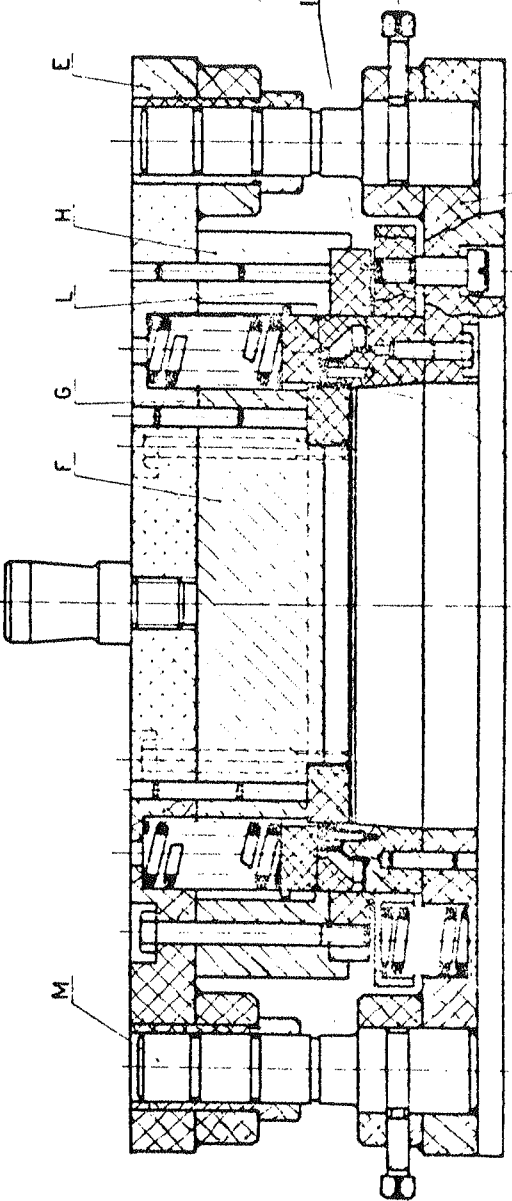
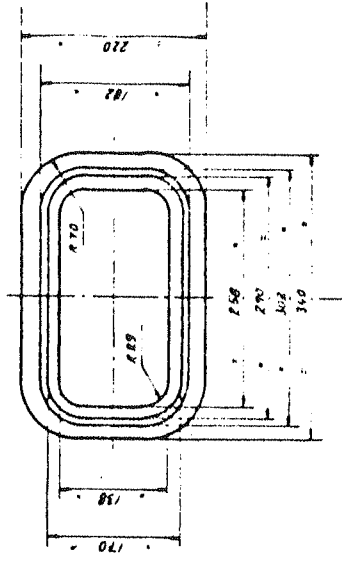
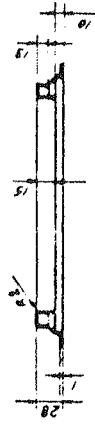
X-X Kesiti

Y-Y Kesiti

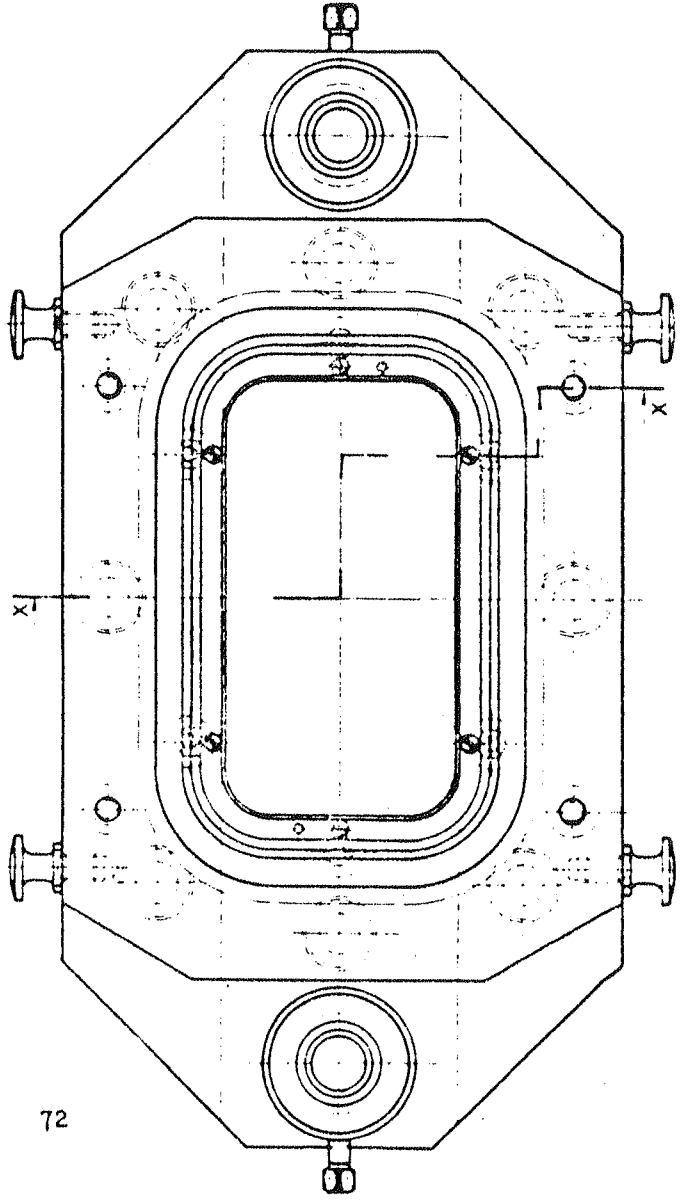




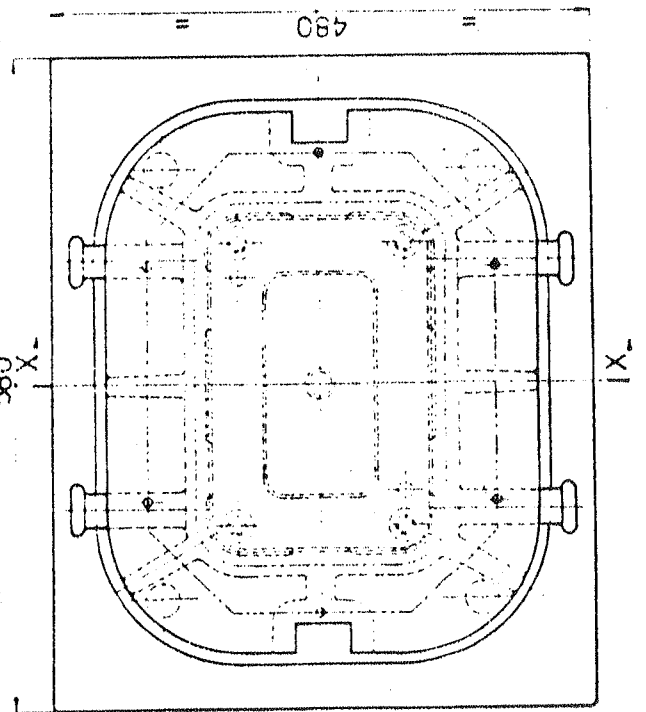
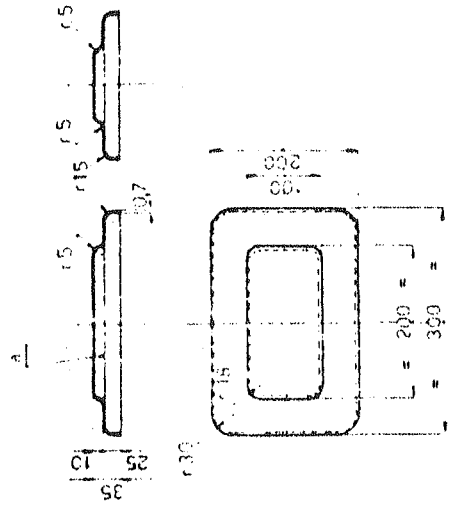
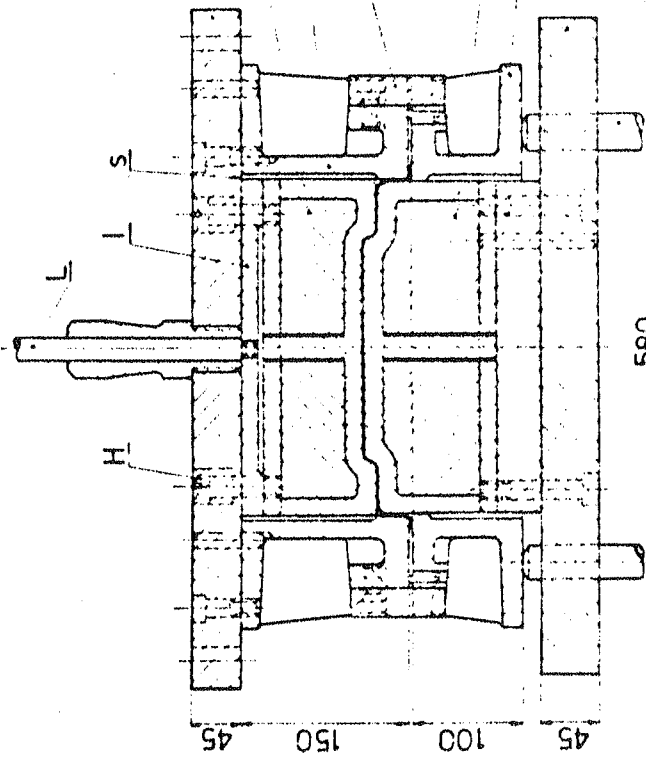
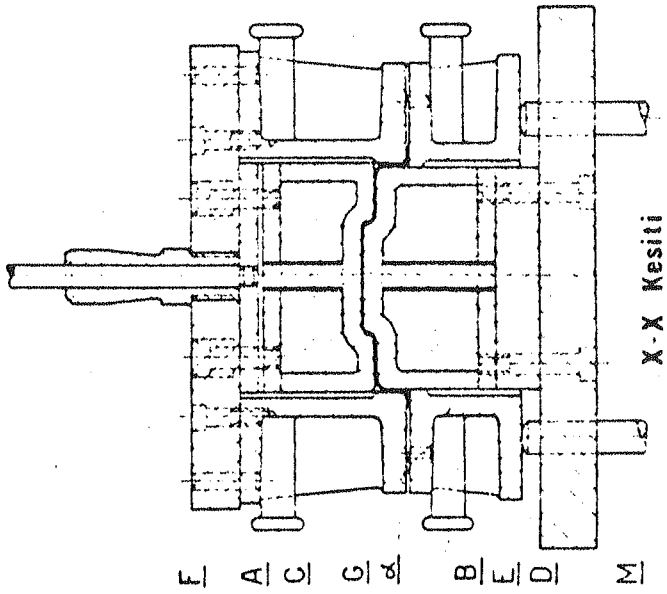
X-X Kesiti

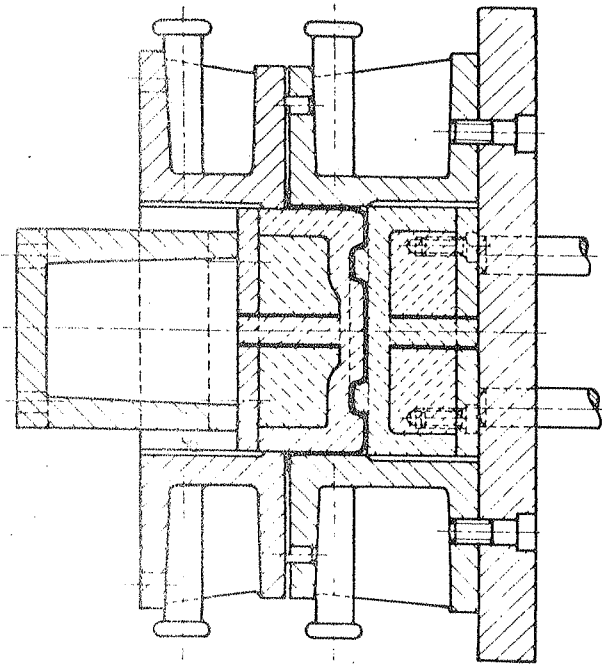


C / B / D

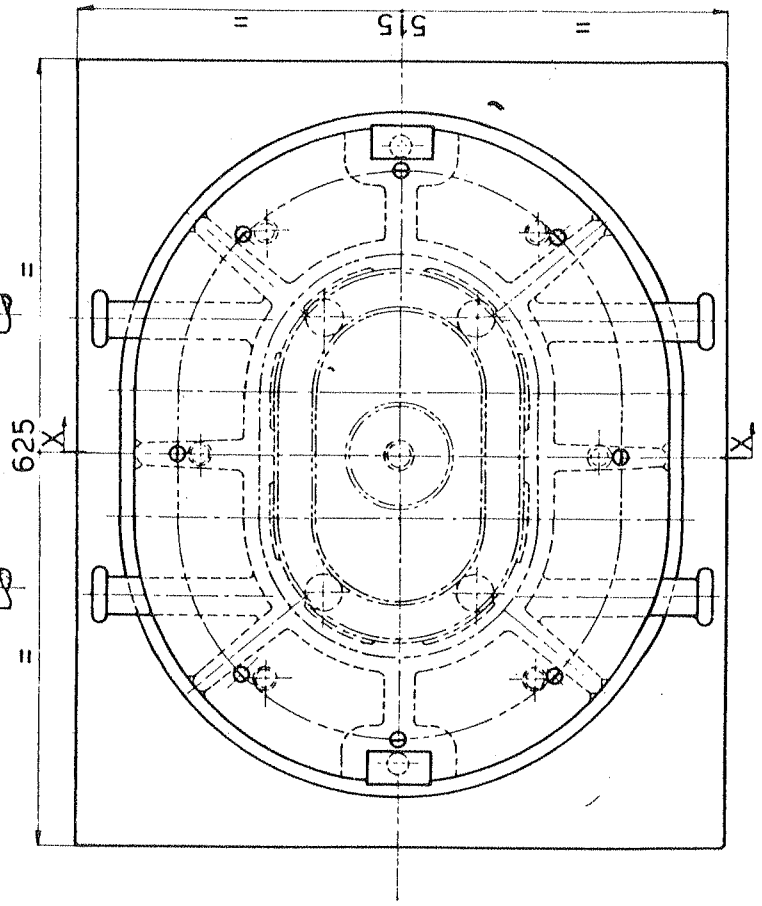
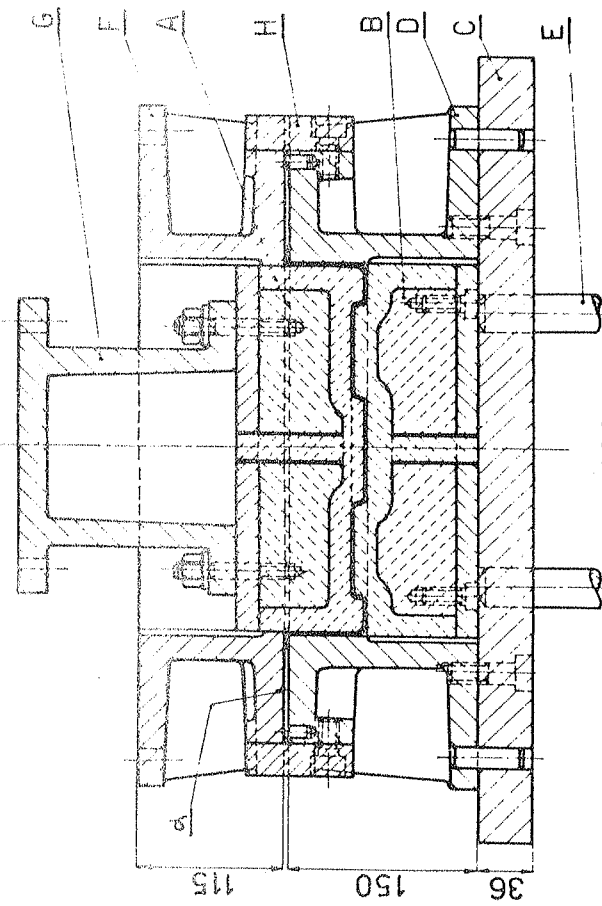
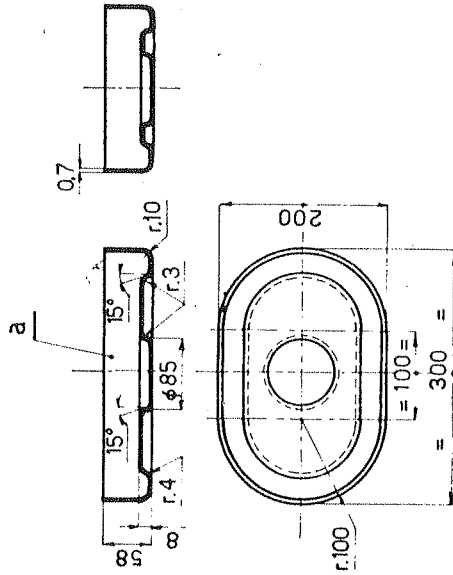


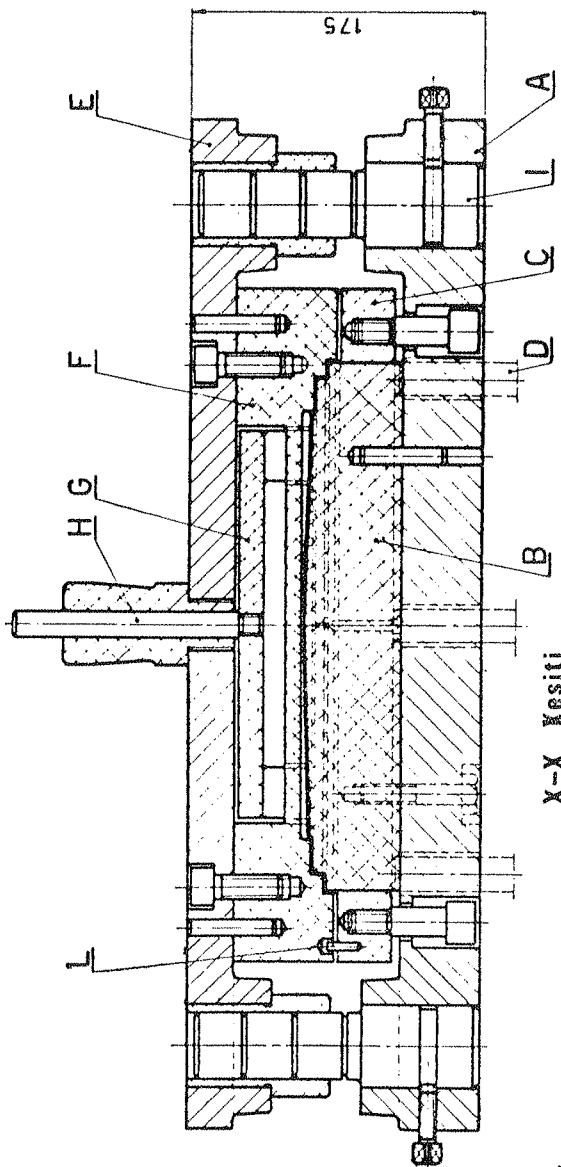
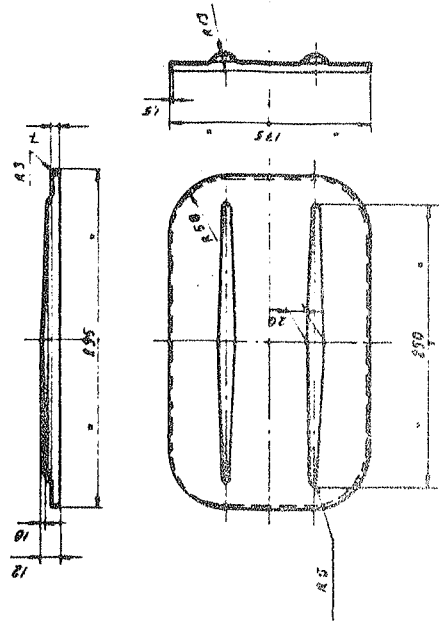
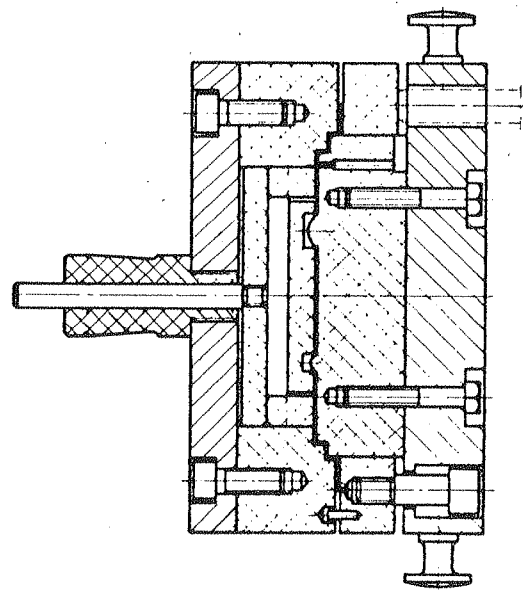






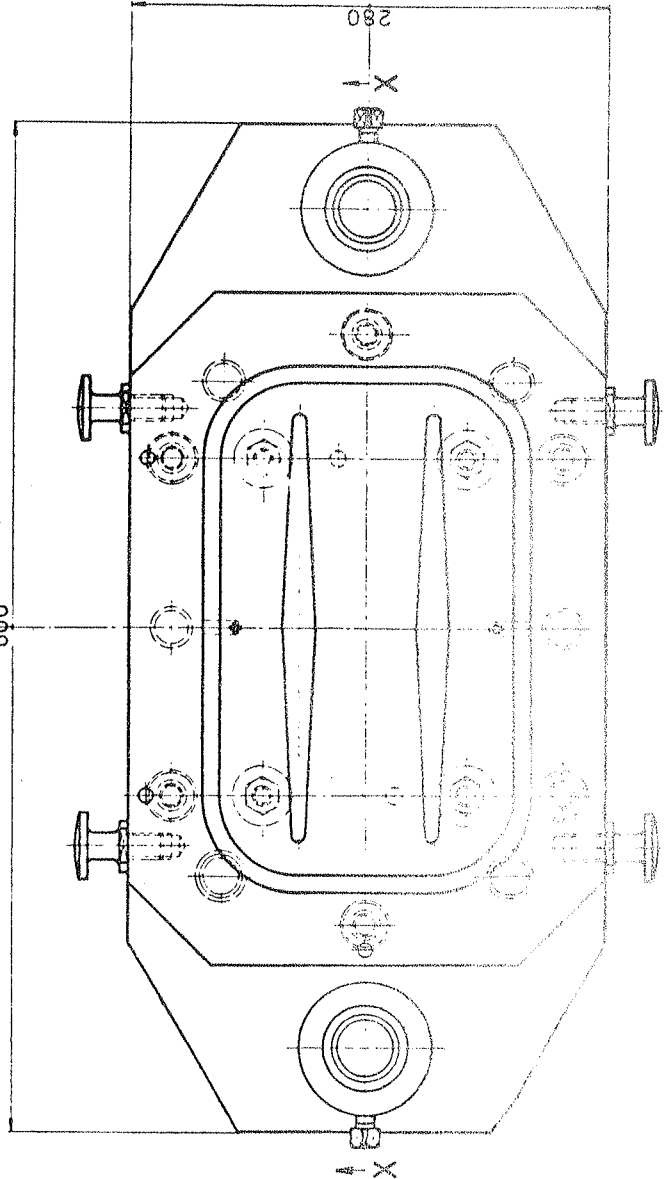
X-X Kesiti

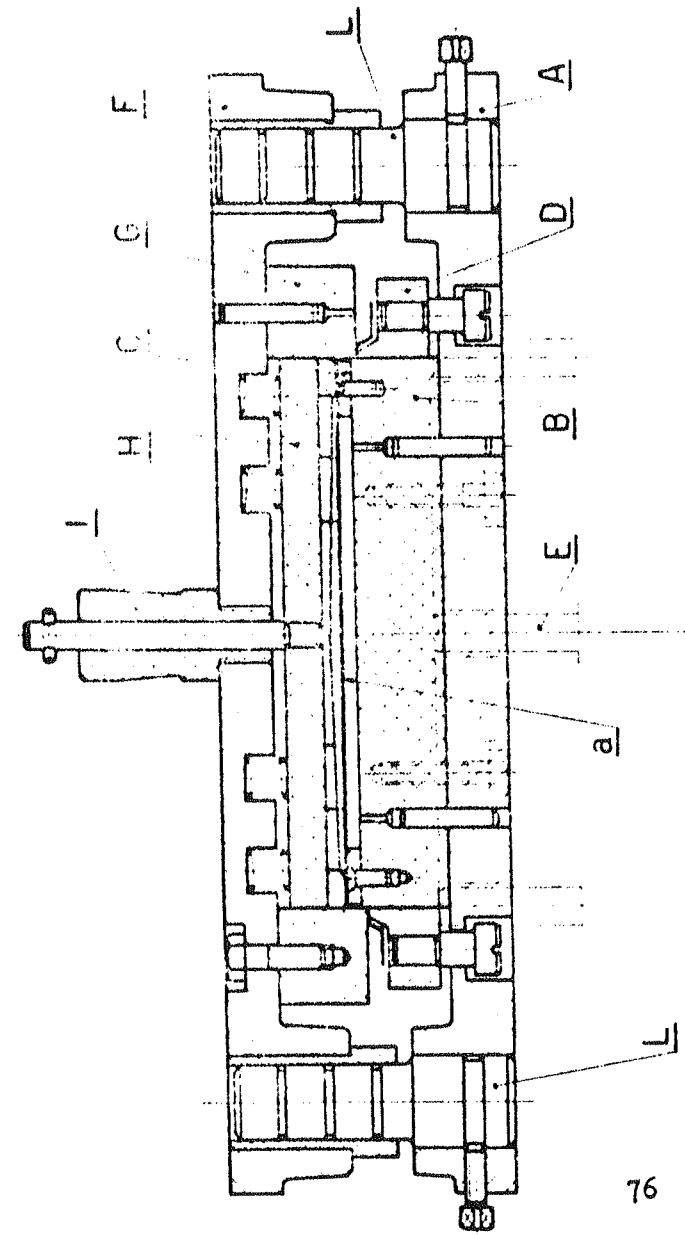
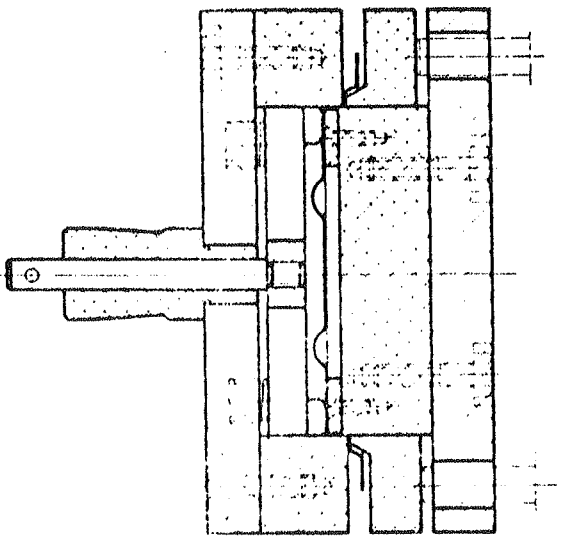
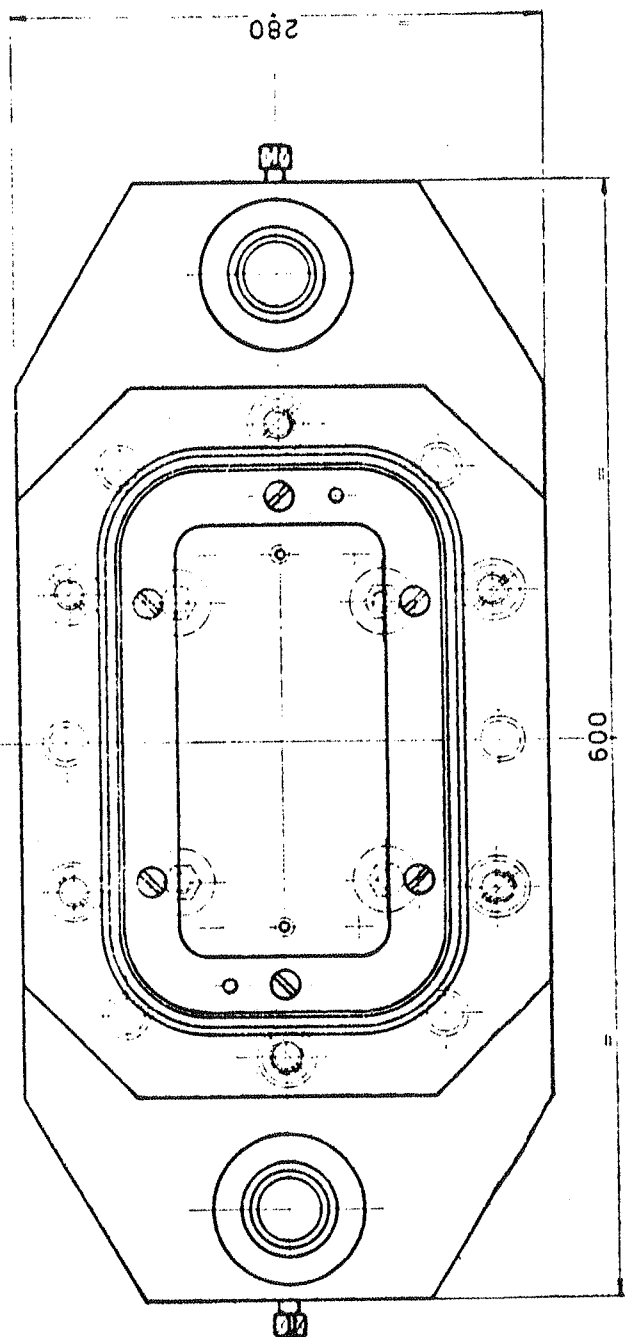




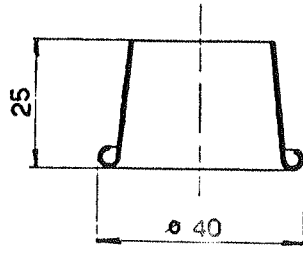
X-X Kesiti

600

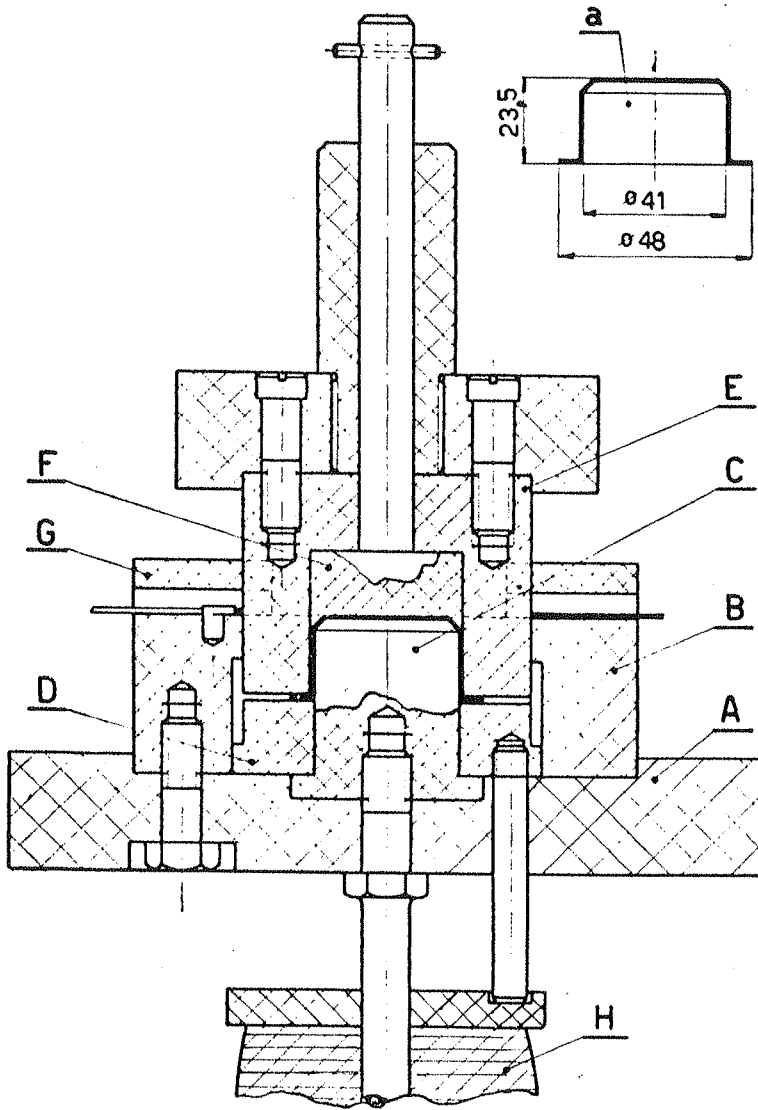




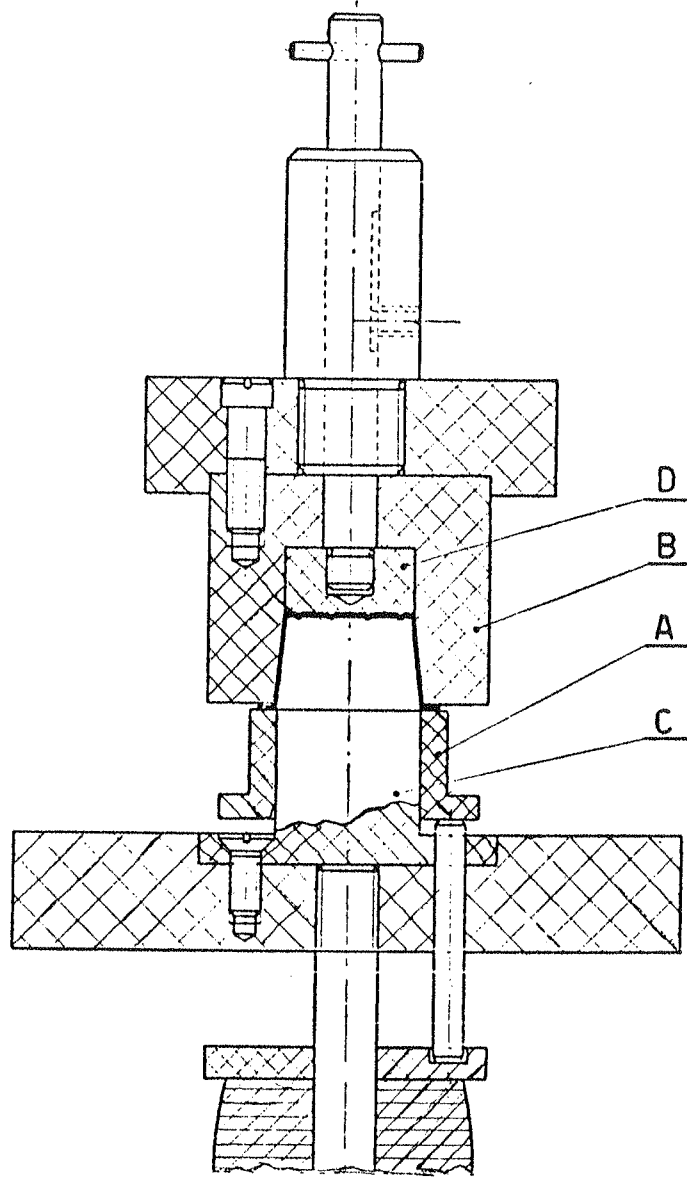
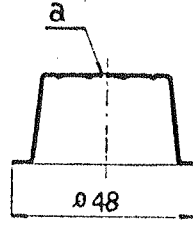
## KARIŐIK ENDÜSTRİ KALIP PROBLEMLERİ



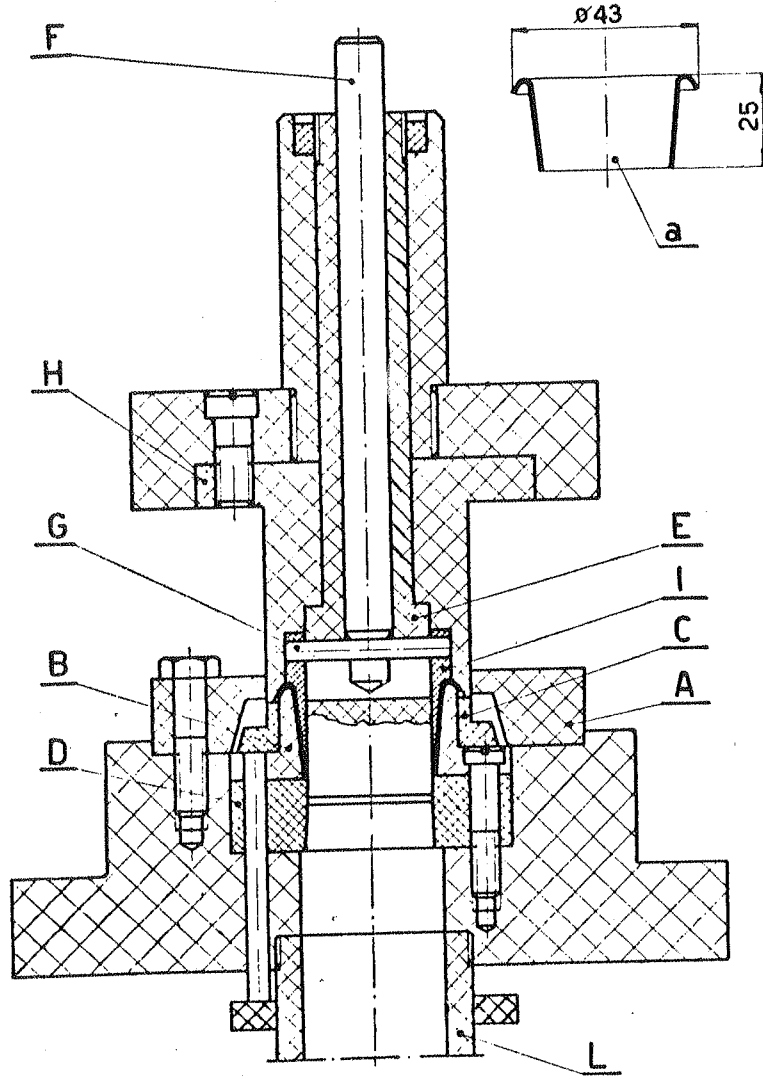
İmalî istenen parça



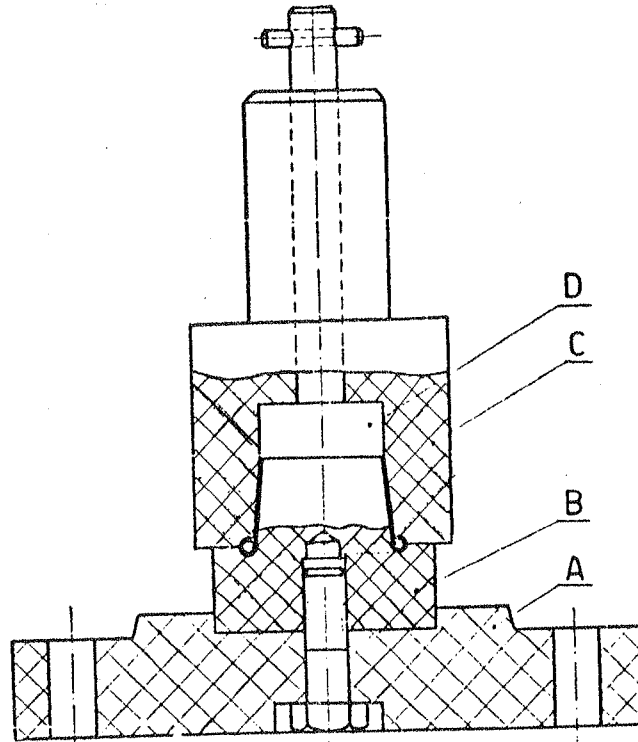
1. KADEME, 1. ÇEKME



2.KADEME. 2.Çekme

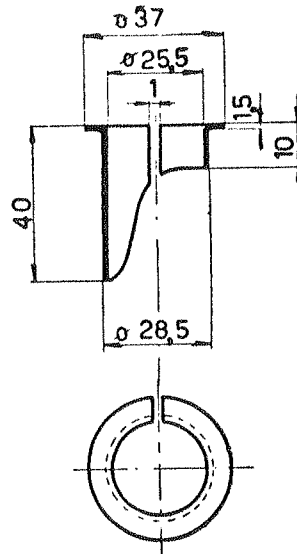


**3. KADEME, TABAN DELME-ETEK KIVIRMA (ÖN)**



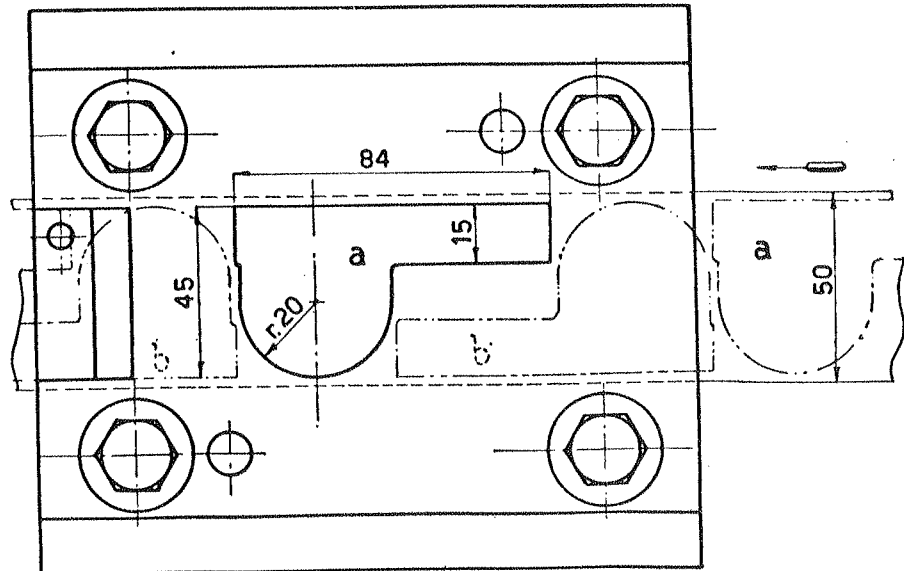
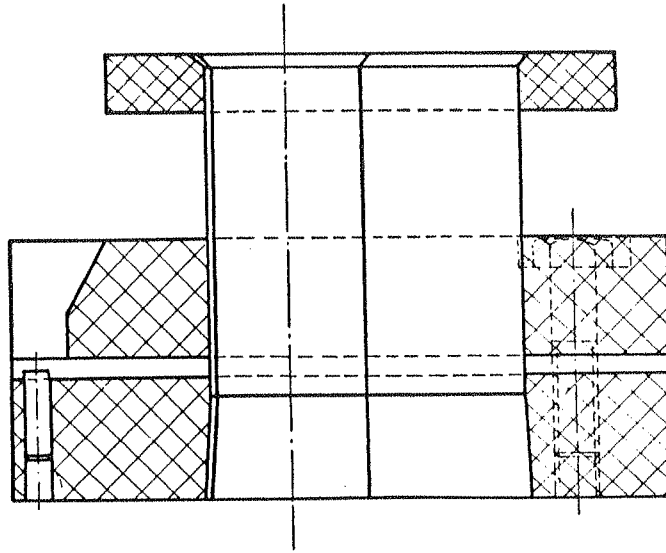
**4. KADEME, ETEK YUVARLAK KIVIRMA**

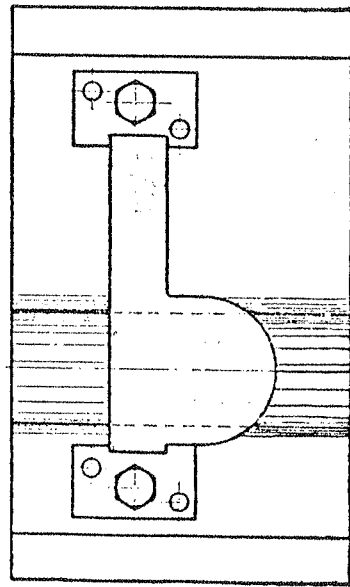
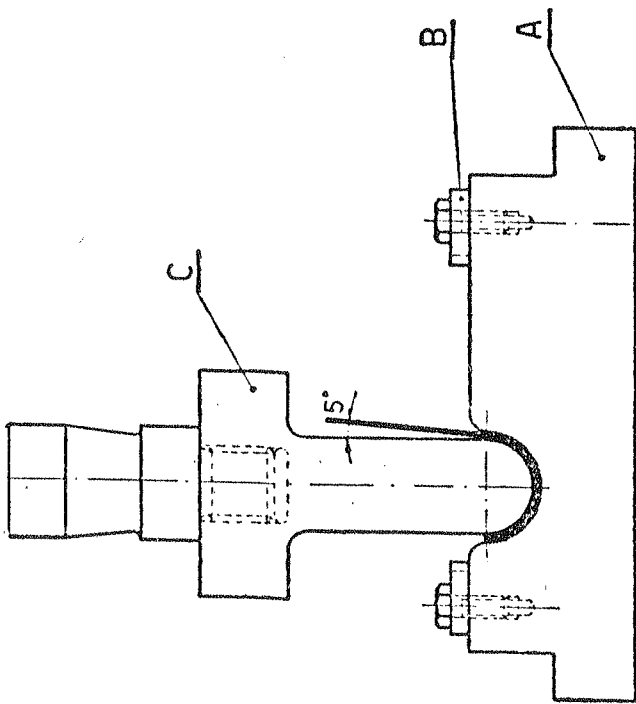




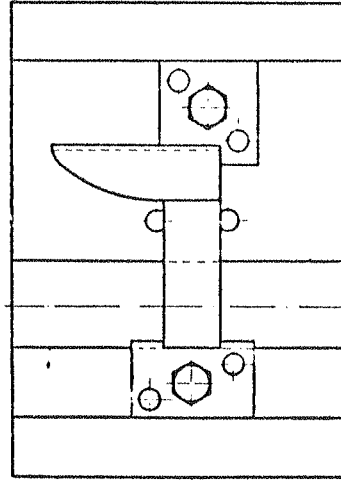
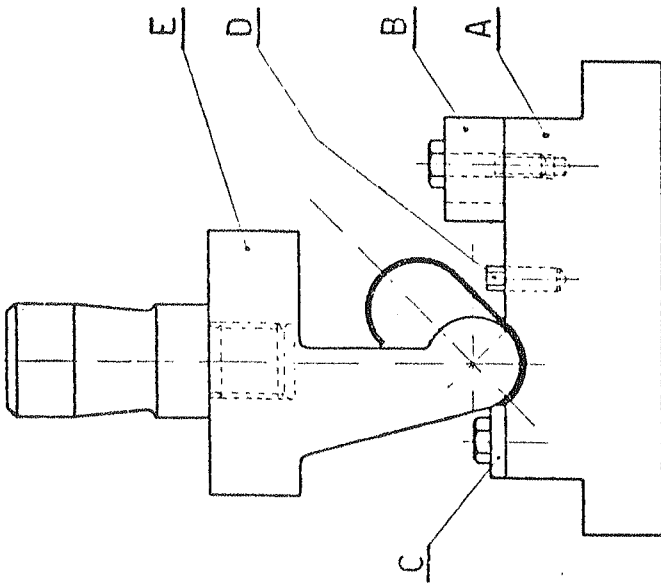
İmalî İstenen parça

1.KADEME\* Açınım kesme

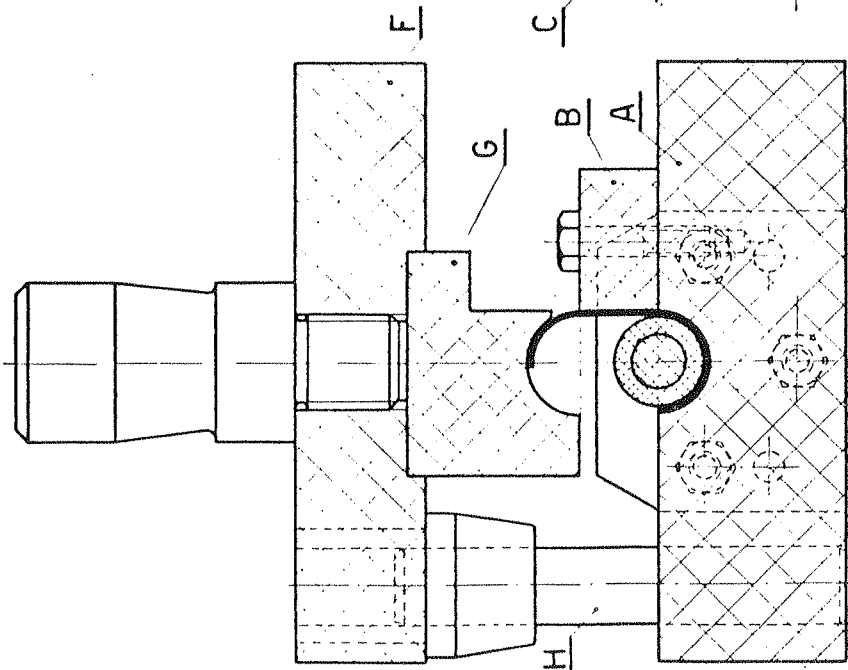




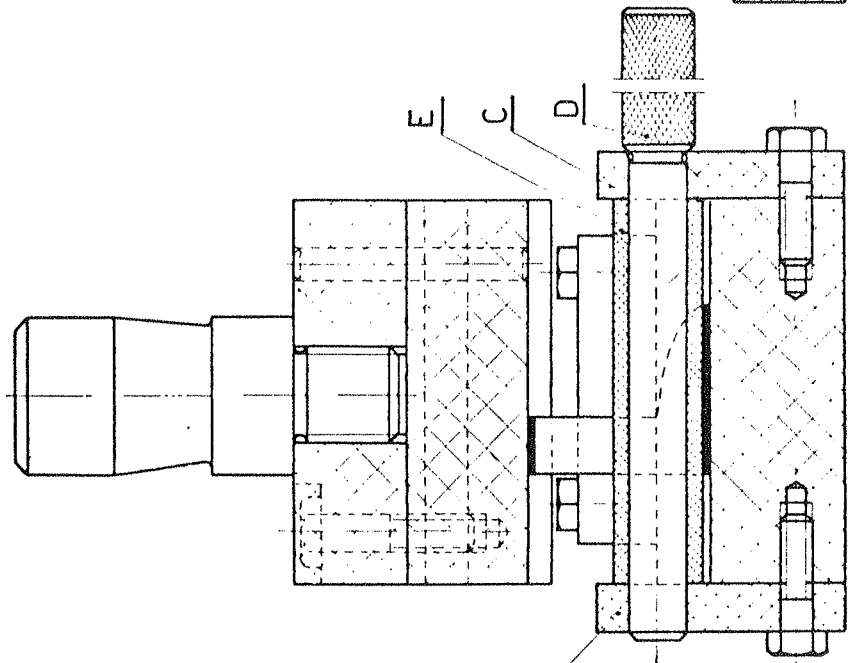
2. KADEME # 1. BÜKME



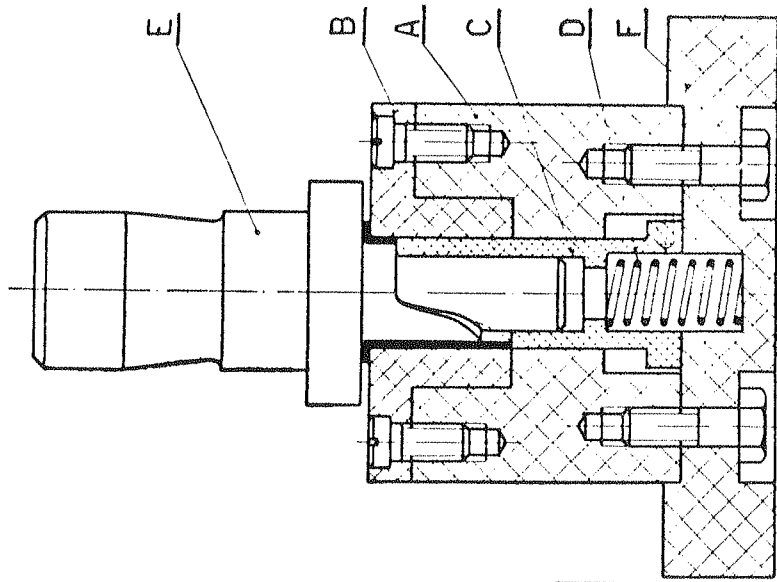
3. KADEME # 2. BÜKME

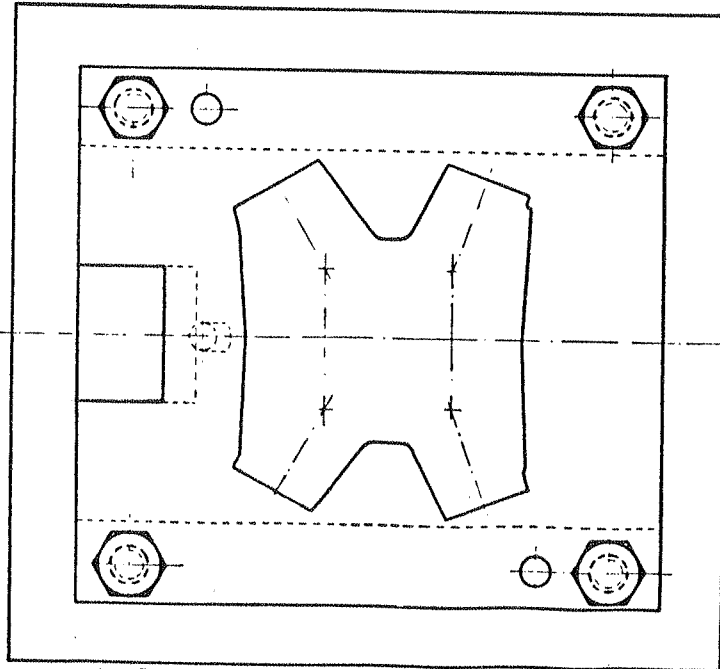
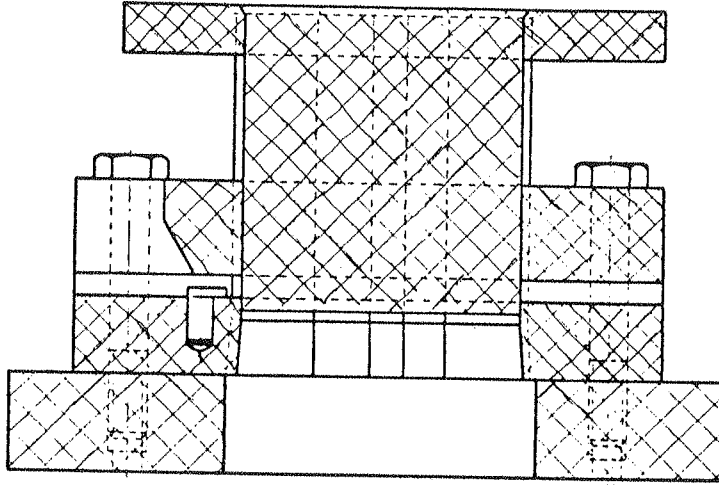
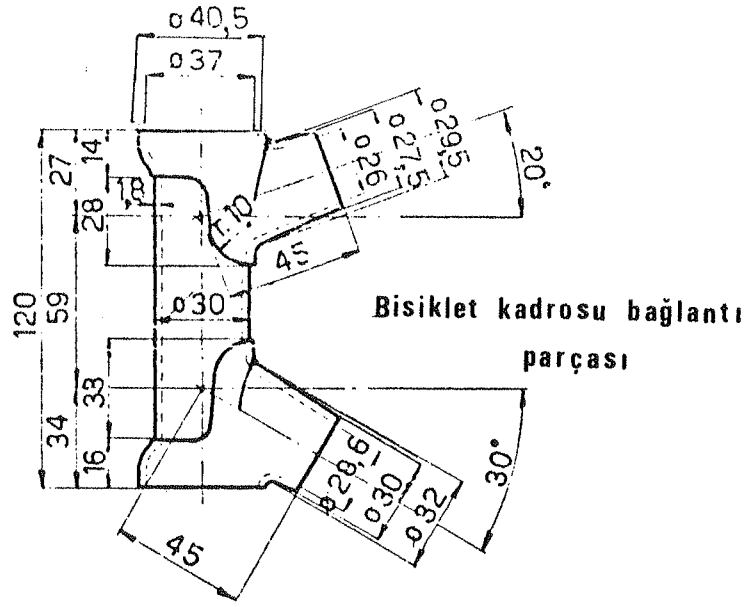


4.KADEME \* YUVARLATMA



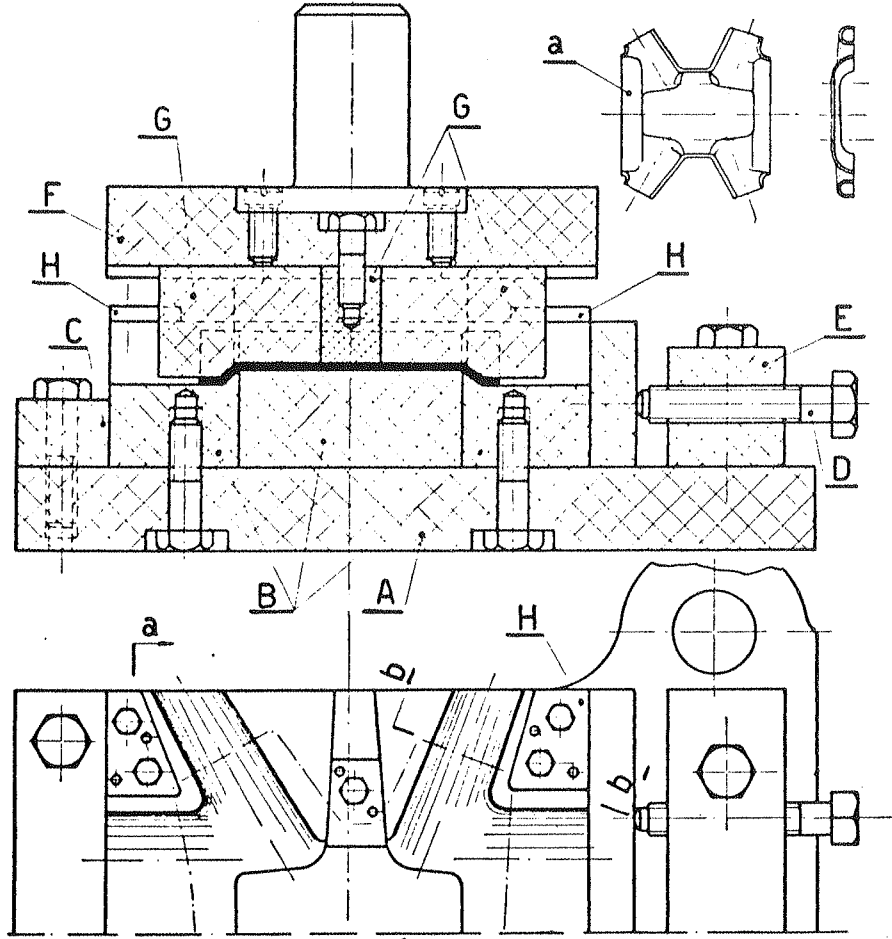
5.KADEME \*



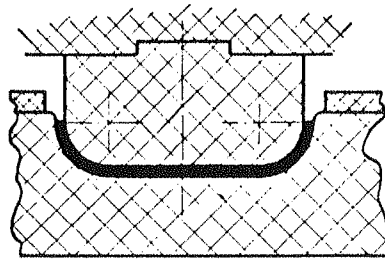


1. KADEME. Açınım Kesme

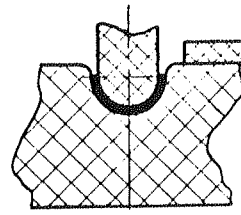
Bisiklet kadrosu bağlantı parçası



a



a-a KESİTİ

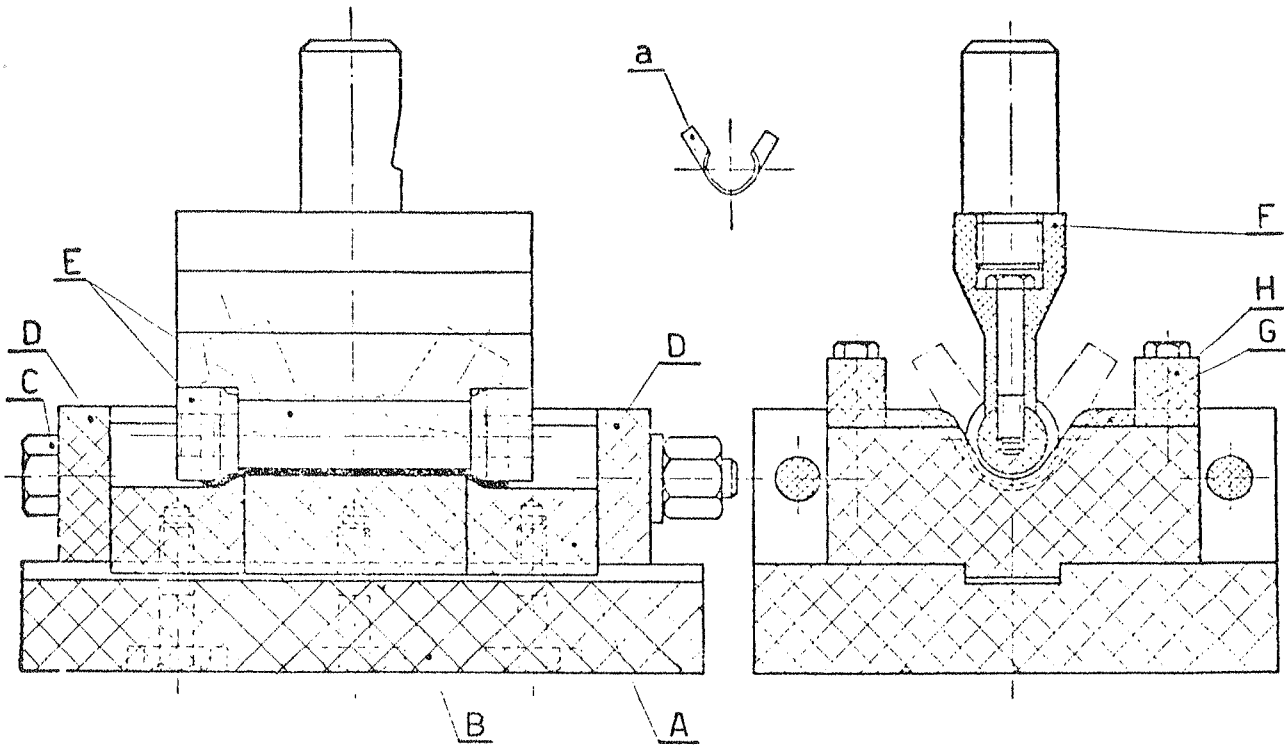


b-b KESİTİ

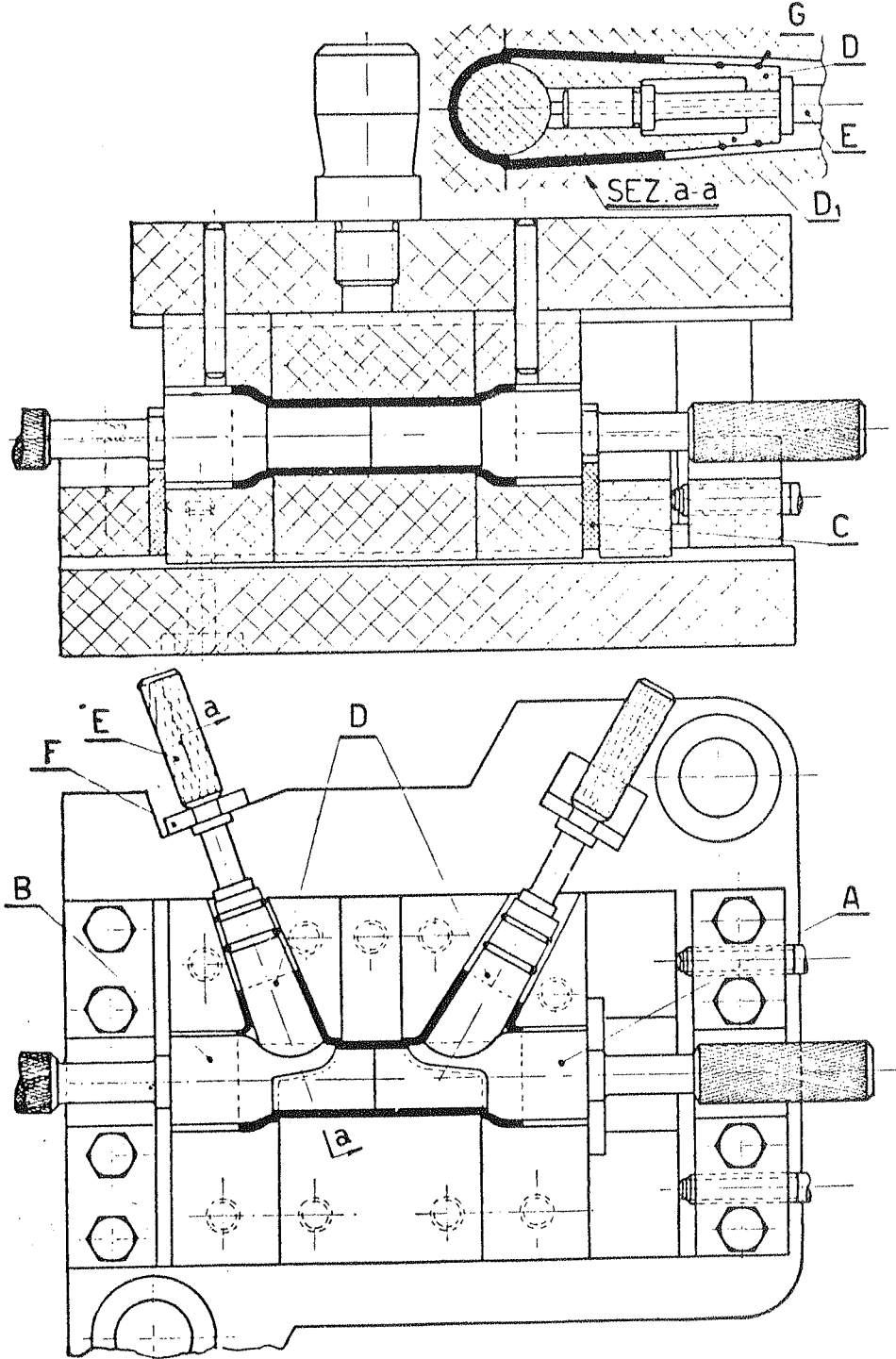
2. KADEME \* 1. BÜKME

Bisiklet kadrosu bağlantı parçası

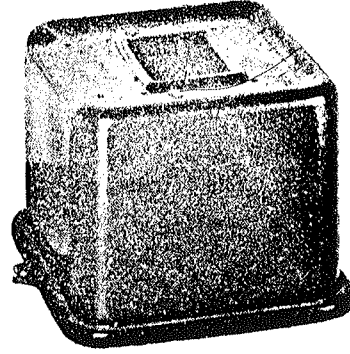
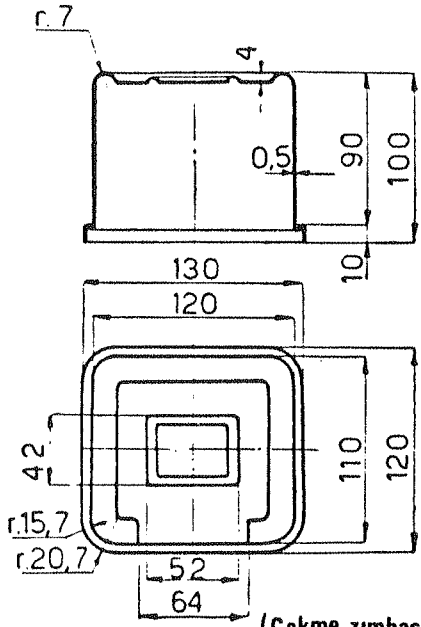
3. KADEME \* 2. Bükme



Bisiklet kadrosu bağlantı parçası

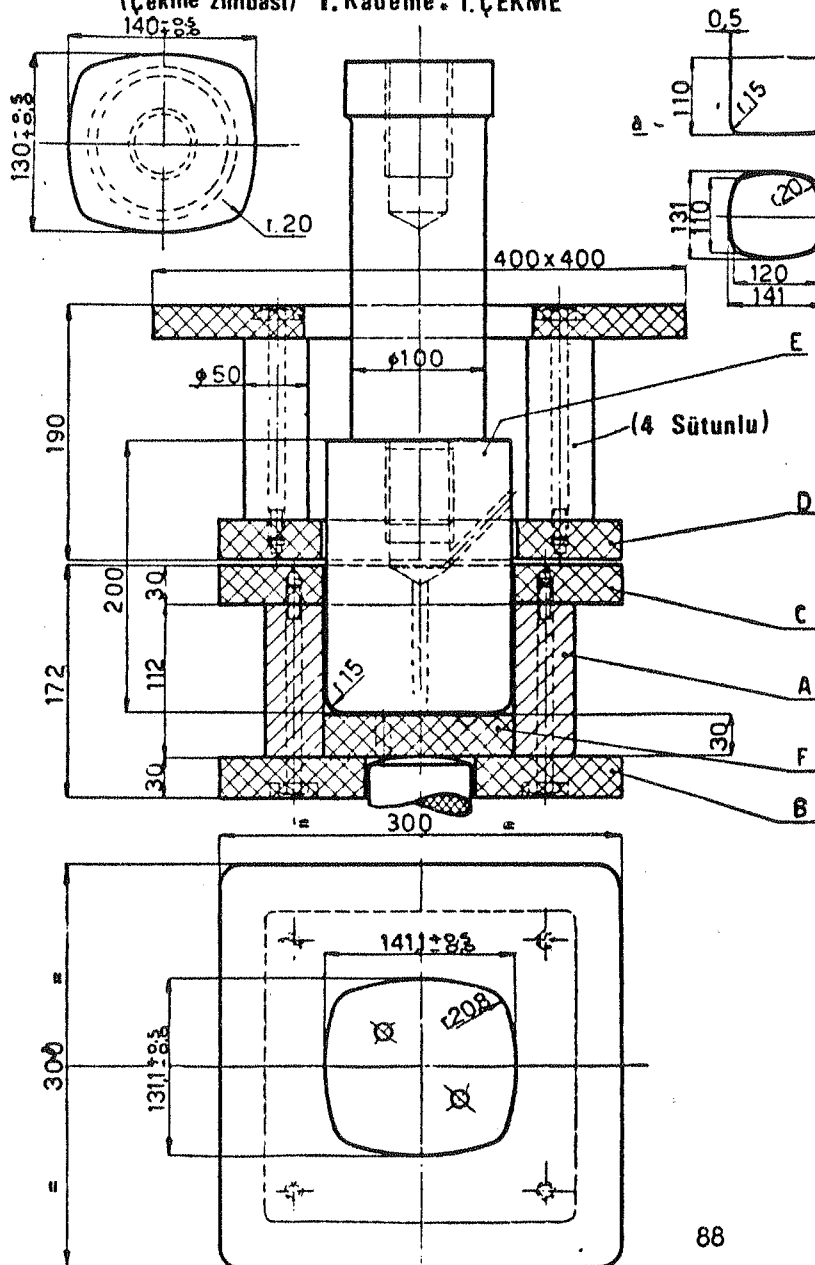


4. KADEME. Son bükme-Ütüleme

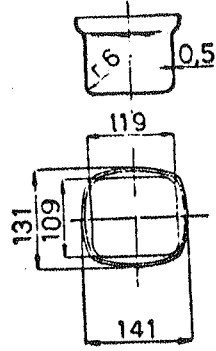


Elektrik sayac kutusu

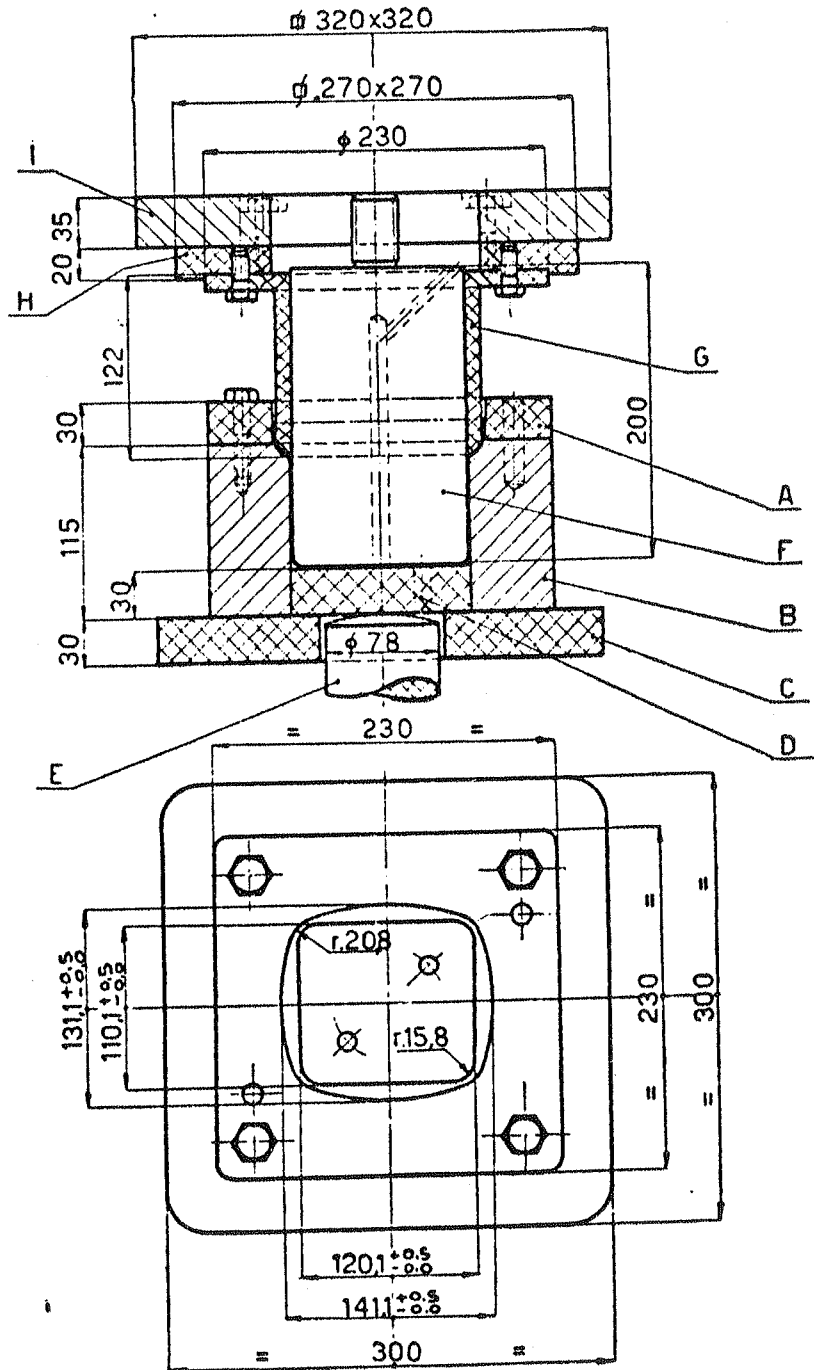
(Çekme zimbasi) 1. Kademe - 1. ÇEKME







Elektrik sayac kutusu  
**2. KADEME** - Taban formu - Flanş etek formu (ilk)



- Elektrik sayac kutusu -

3. KADEME. Taban formu - Flanş etek formu ( Son )

