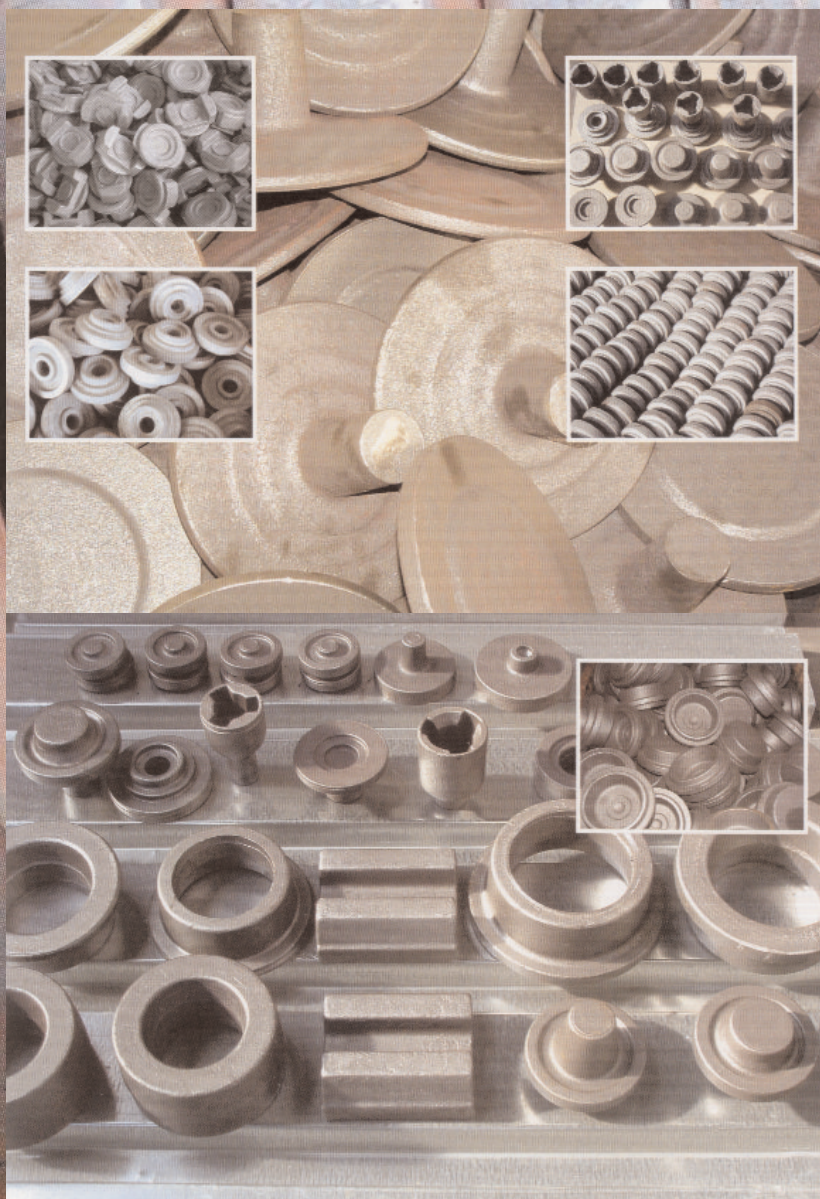




Forging parts



Usual Steel Grades

STAS-RO	EN	DIN	WERKSTOFF	GOST, TU (*)	AIISI/ASTM
ROMANIAN	EUROPEAN	GERMAN	GERMAN	CIS	USA
OL37	S235JRG2/Fe360BFN	RSt37-2	1.0038	St3Sp	A57Gr36
OL52-2K	S355J0/Fe510C	St52-3U	1.0553	-	-
OL52-2K	S355JR/Fe510B		1.0045	-	-
OL52-3K	S355J2G3/Fe510D	St52-3N	1.0570	17A1C	-
K460	P295GH	17Mn4	1.0481	14A2	A516Gr70 A515Gr70 A414GrF,G
R510	P355GH	19Mn6	1.0473	-	A537C11 A414GrG A612
OLC10	-	C10	1.0301	10	M1010
OLC25	C25	C25	1.0406	-	(M) 1025
55MoCrNi16	-	-	-	-	-
W85	-	X30WCrV9-3	1.2581	-	-
12MoCr50	12CrMo195	12CrMo195	1.7362	-	-
OLC45	C45	C45	1.0503	45	1045
10Cr130	X12Cr13	X12Cr13	1.4006	12X13	410
10TiNiCr180	X6CrNiTi18-10	X6CrNiTi18-10	1.4541	06X18H10T	321
20Cr130	X20Cr13	X20Cr13	1.4021	20X13	420A
40Cr10	41Cr4	41Cr4	1.7035	40X	5140
18MnCr11	-	16MnCr5	1.7131	18XA	5115
17MoCrNi14	-	17NiCrMo6-4	1.6566	-	-
26MoCr11	25CrMo4	25CrMo4	1.7218	30XM	4130
42MoCr11	42CrMo4	42CrMo4	1.7225	40X AM	4140
34MoCrNi16	34CrNiMo6	34CrNiMo6	1.6582	34XHMA	4340
39MoAlCr15	-	-	-	-	-
18MoNiCr17	17CrNiMo6	17CrNiMo6	1.6587	-	-
57VMoCrNi16	55NiCrMoV7	55NiCrMoV6	1.2713	5XHM	L6
30VCrW85	X30WCrV93	X30WCrV9-3	1.2581	3XW8F	H21

By request we could produce forgings from any kind of steel grade.

Our cutting off facility includes:

- horizontal band saw cutting machines
(length 3660, for rounds bars: 40-200mm)
- horizontal band saw cutting machines
(length 3800 for round bars: 40-200mm)
- horizontal band saw cutting machines
(length 5300 for round bars: 200-400mm)
- horizontal band saw cutting machines
(length 4930 for round bars: 200-440mm)
- “Bret” guillotine.

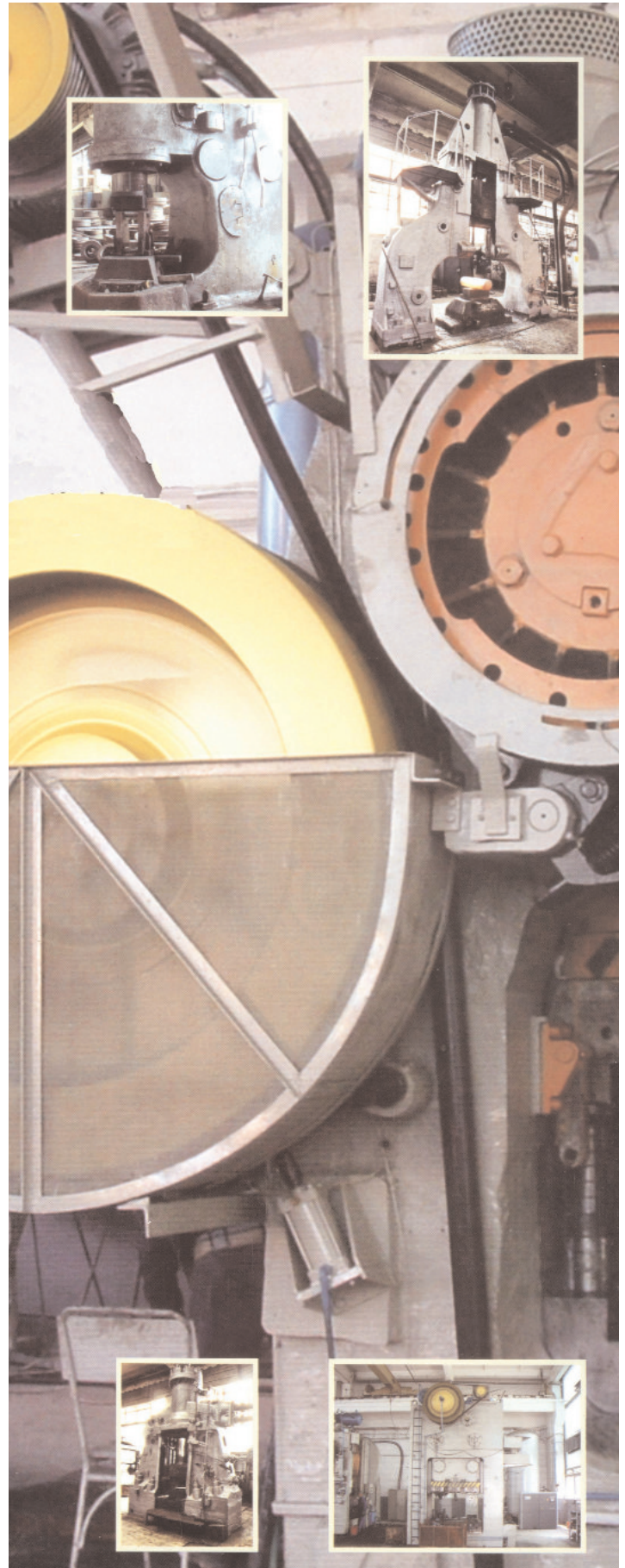
Forging Capabilities

For small forgings
we use:

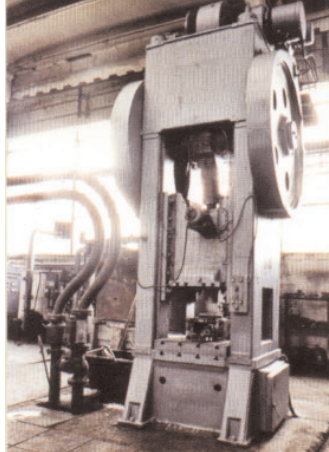
EQUIPMENT	CAPACITY
Hammers	160 kgf
	400 kgf
	750 kgf
Screw presses	250 tf
	400 tf
Mechanical presses	16 tf
	63 tf
	100tf
	250 tf
Die hammer	2500 kgf
Mechanical press	400tf
Forging hammer	1000 kgf

For large forgings
we have:

EQUIPMENT	CAPACITY
Forging hammers	2000 kgf
	4000 kgf



Maxi presses



An important part of our Investment Plan was the purchasing of two maxi presses (thus):

- 2500 ton MAXI forging press with electric induction heating, which allows high precision forgings.
- 1300 ton MAXI forging press; with high stroke speed (100 strokes/min); superior to hydraulic presses

The Maxi press is the best suited tool for frontal die forging of large or medium series parts. Due to its high productivity and low energy consumption, the final product costs are low, bringing us satisfied customers.

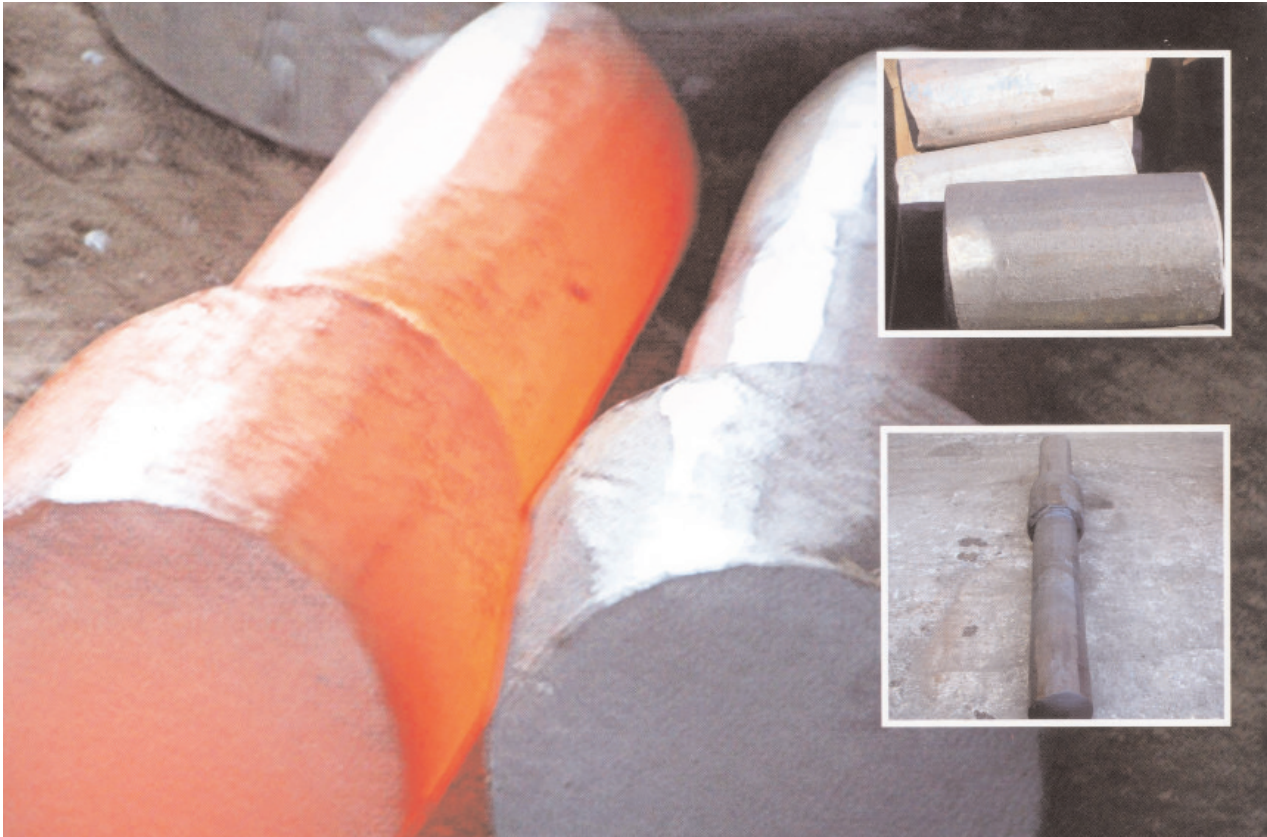
Productivity achieved with such equipment is aprox. 2 to/shift for 1300 ton maxi press and 5 to/shift for 2500 ton maxi press.

As a result of their construction (compared to hammers), the precision obtained by presses is high. Precision obtained by presses is high. Precision forging normally means close-to-final form or close-tolerance forging. It is not a special technology, but a refinement of existing techniques to a point where the forged part can be used with little or no subsequent machining.

2500 Ton Maxipress General Characteristics

Capacity	2500 tons
Strokes per min.	55
Strokes length	355 mm
Die seat:	
-Width	1230 mm
-Depth	1300 mm
Ram face:	
- Width	1100 mm
- Depth	1210 mm
Dimensions:	
-width	4060 mm
-Floor space (depth)	3780 mm
-Height above floor	5150 mm
Motor (kW)	132
Net weight (kg)	134710

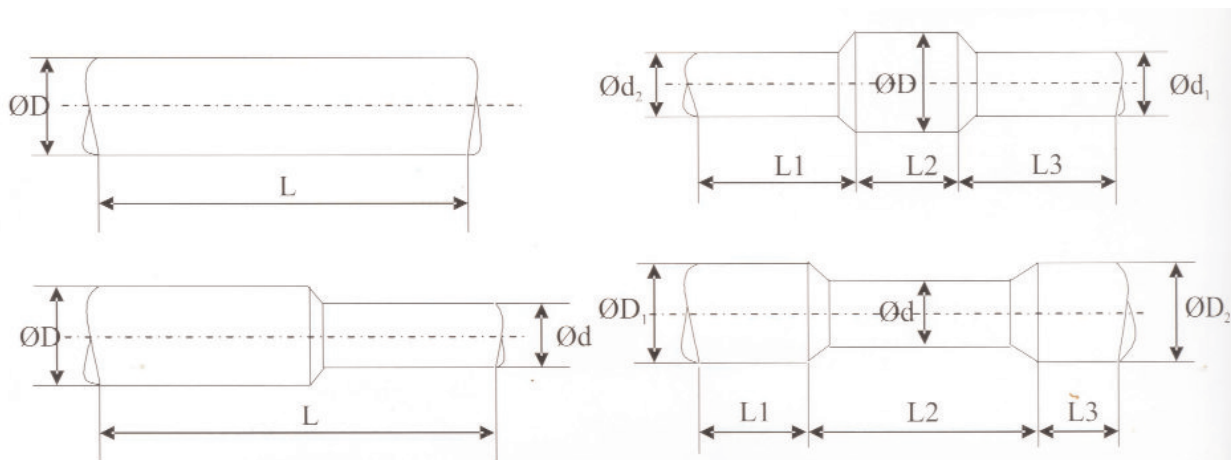
Hammer forgings



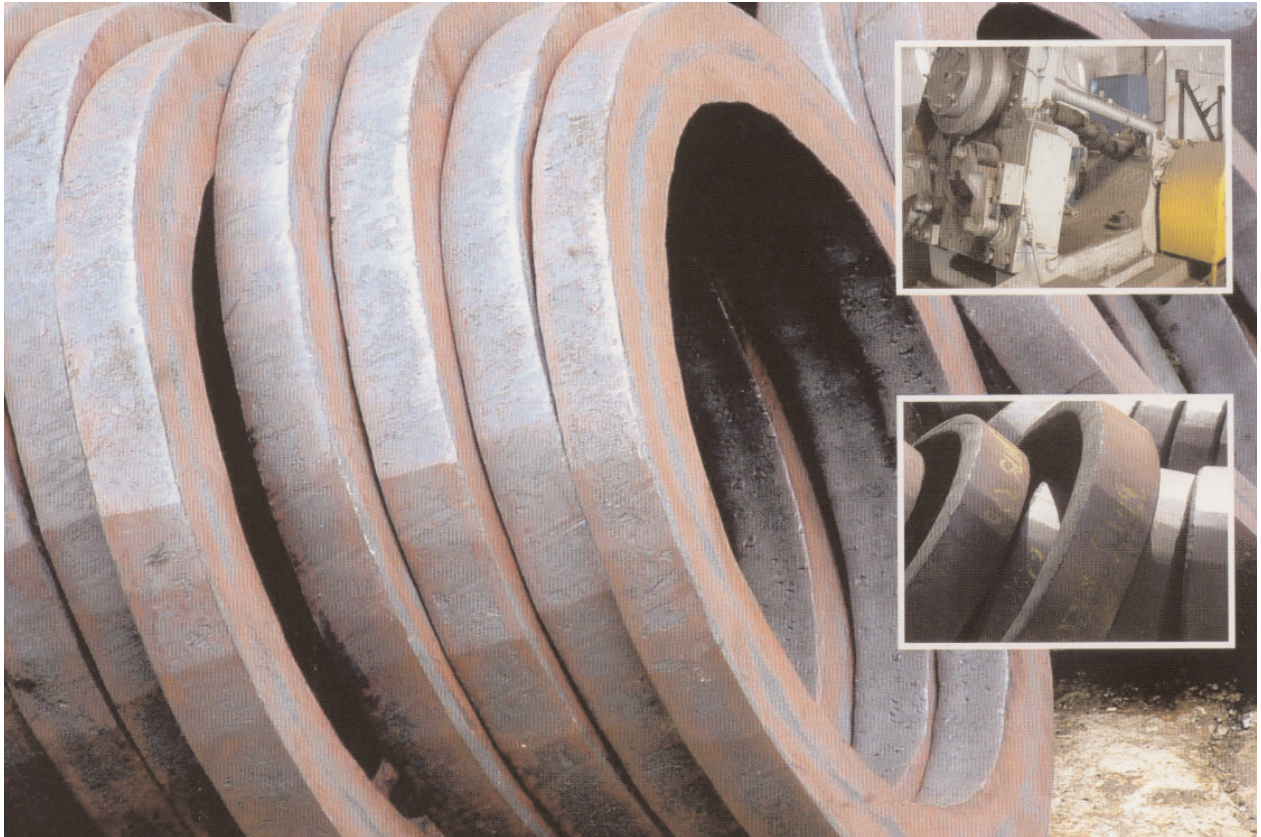
Shaft and Arbore type

weighting up to 2,500 kgs

Diameter ($\varnothing D$; $\varnothing d$):	$\varnothing 50 - \varnothing 380\text{mm}$
Lenght (L ; l):	500 - 3000mm
Weight:	50 - 2500 kg



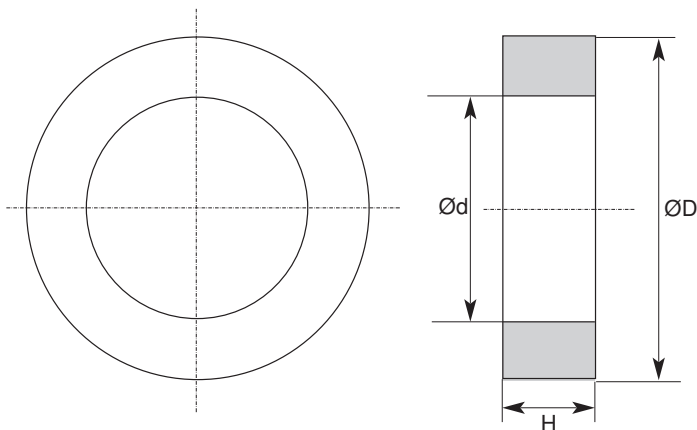
Hammer forgings



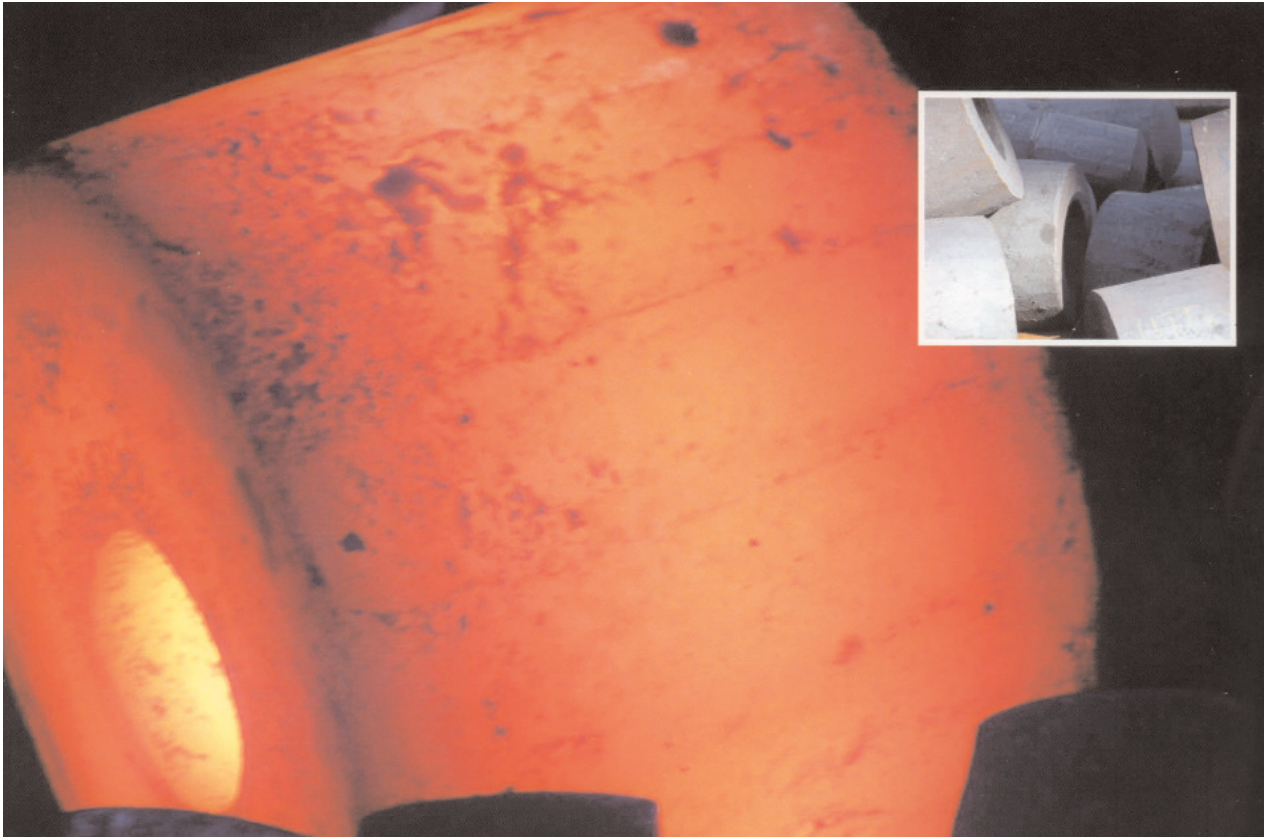
Rings

with diameter up to 1000 mm
and weight up to 600 kg

ØD:	250 - 1000 mm
Ød:	150 - 900 mm
Weight:	10 - 800 kg



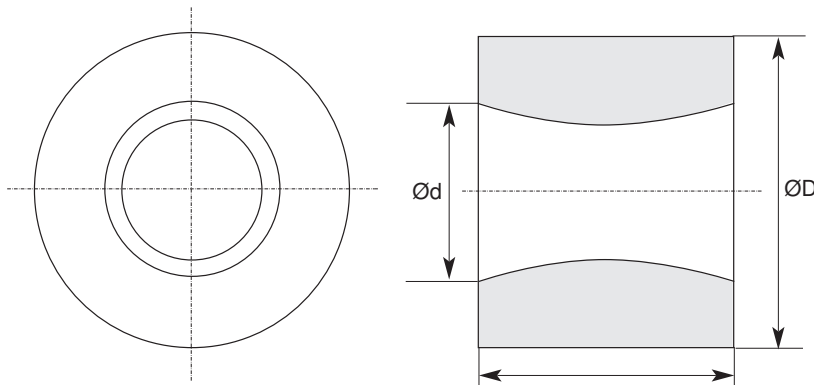
Hammer forgings



Bushings

with diameter up to 1000 mm
and weight up to 600 kg

ØD:	100 - 500 mm
Ød:	50 - 350mm
Weight:	10 - 800 kg



Hammer forgings



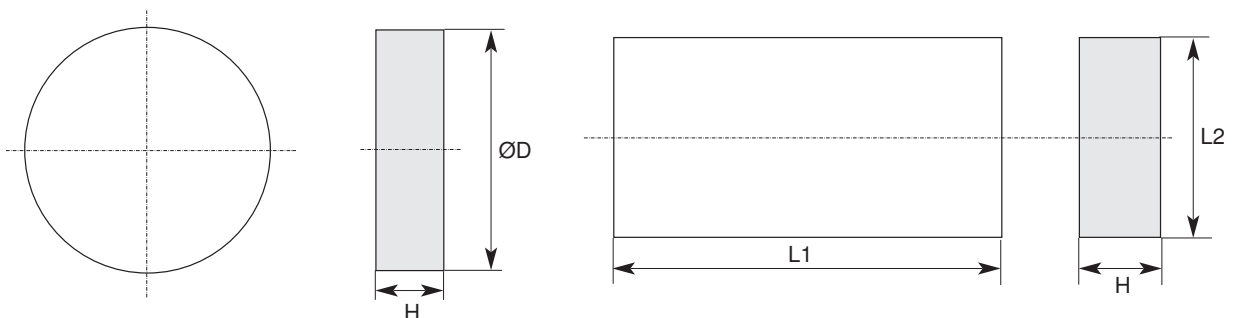
Disks

Prisms, flanges etc.,
weighting up to 1,000 kgs;

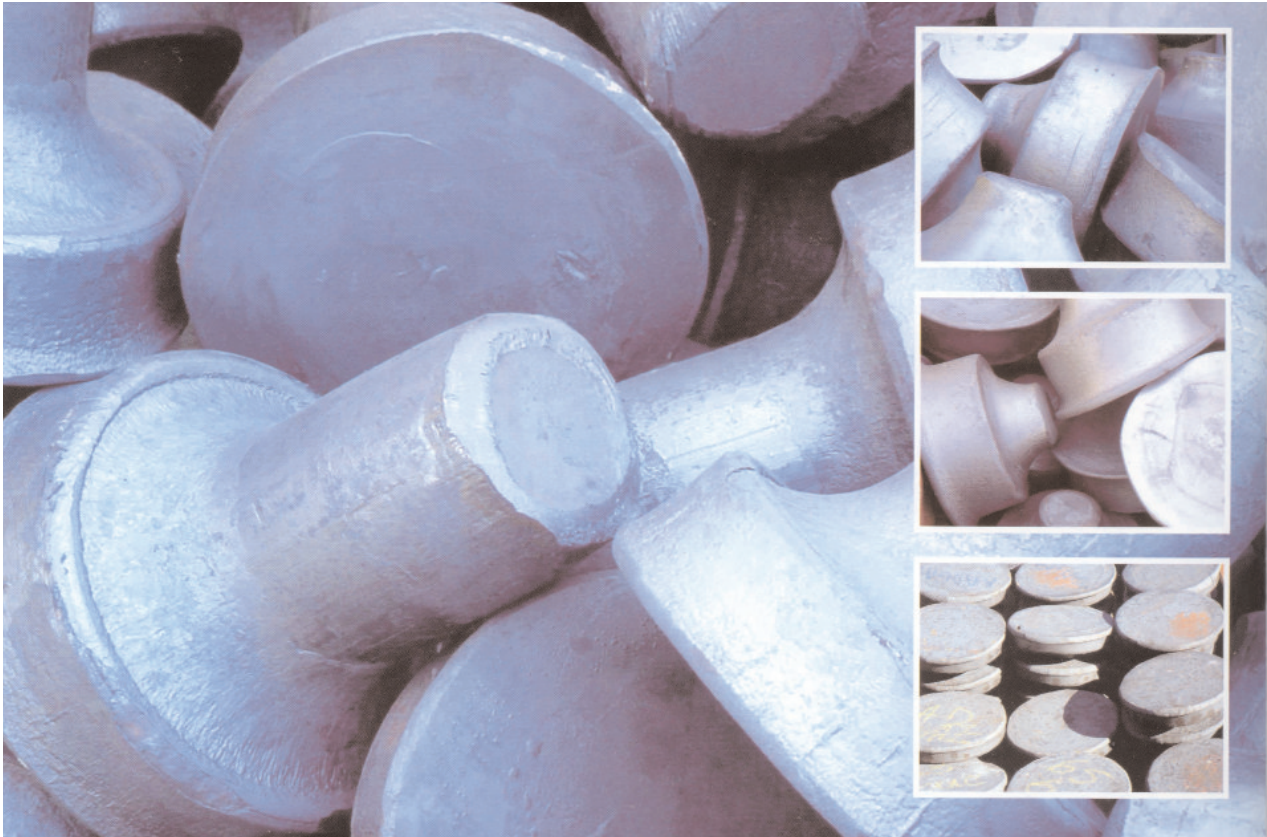
ØD:	100 - 800 mm
Weight:	5 - 800 kg

Plates (Prisms)

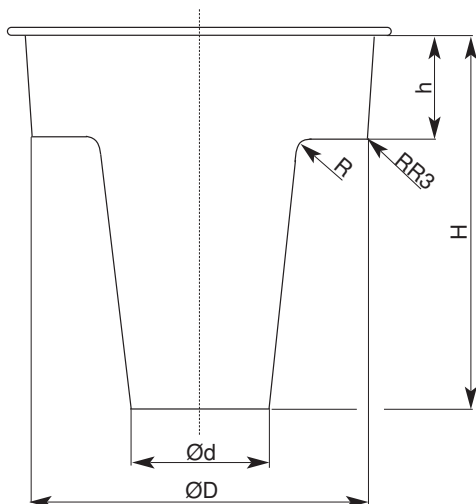
Lenght (L1):	100 - 1500 mm
Width(L2):	100 - 500 mm
Height (H):	10 - 300 mm
Weight:	5 - 700 kg



Forgings



Produced in open dies,
weighting up to **200 kgs**



ØD	150 - 400
Ød	70 - 150
H	100 - 350
h	25 - 100
Weight	5 - 150



Forgings

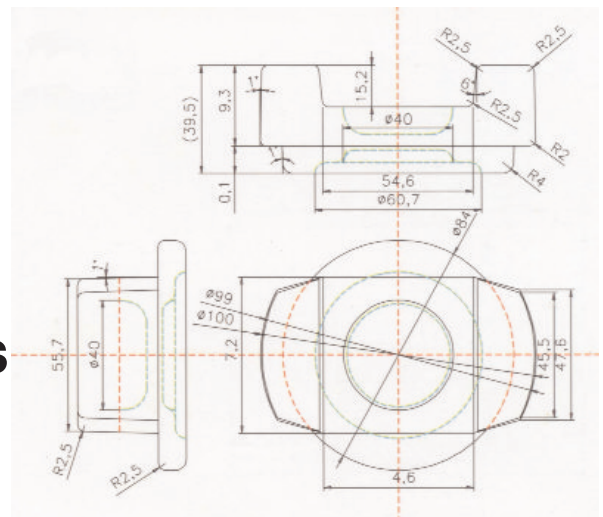


Produced in close dies
on **1300 tf** and **2500 tf** Maxipresses

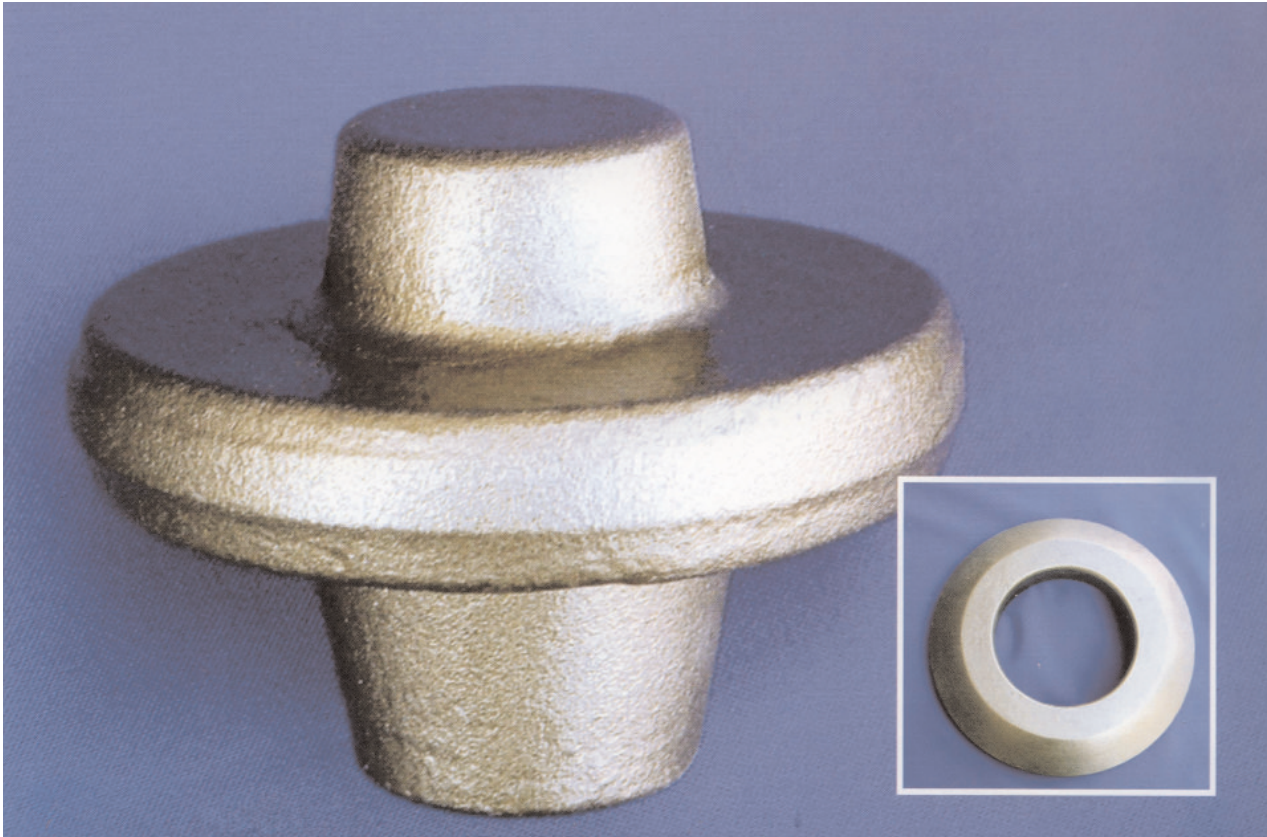
(precision forgings weighting between 250 grams and 2,5 kgs for the 1300t maxi press and between 500 grams and 10 kgs for the 2500t maxi press)



Bushings



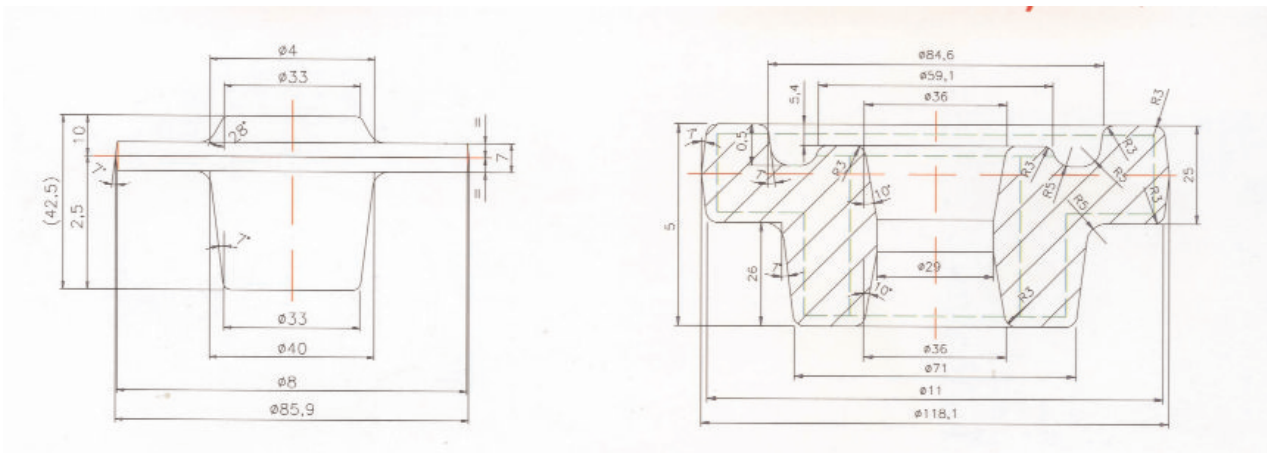
Forgings



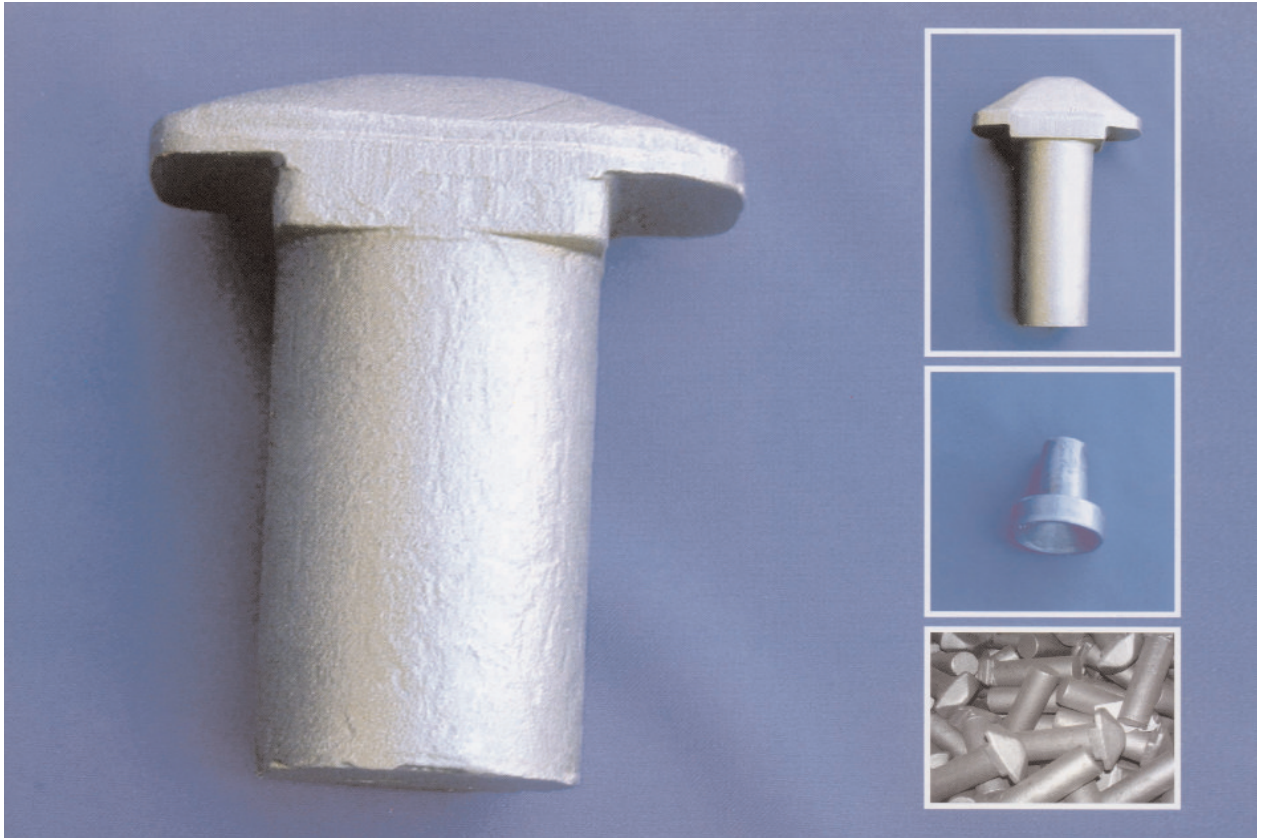
produced in close dies
on 1300 tf and 2500 tf. Maxipresses

Hub

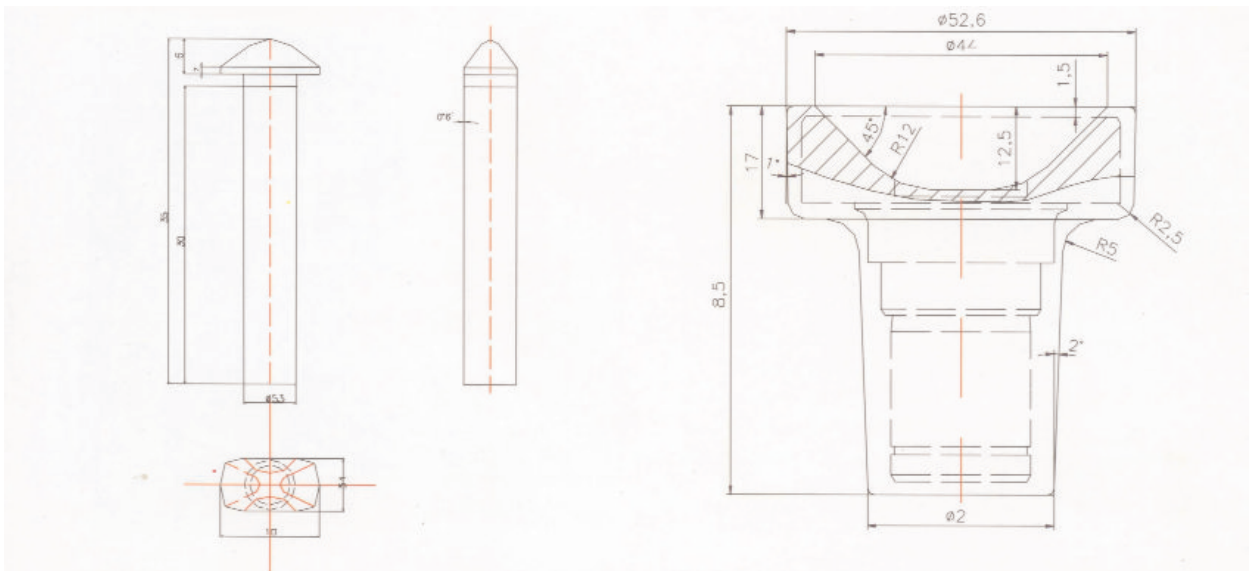
Wheel (Gear)



Forgings



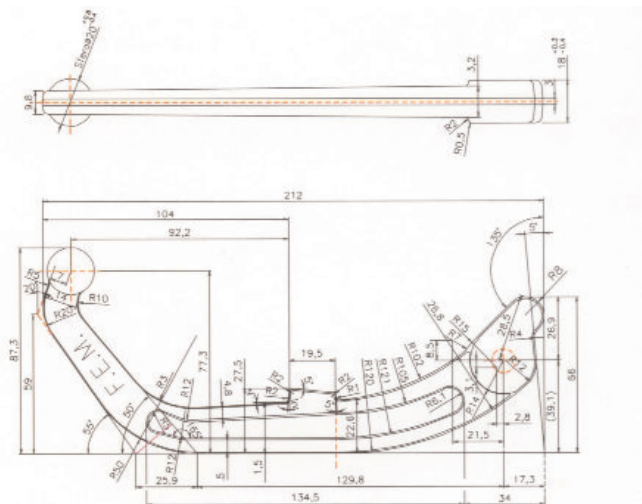
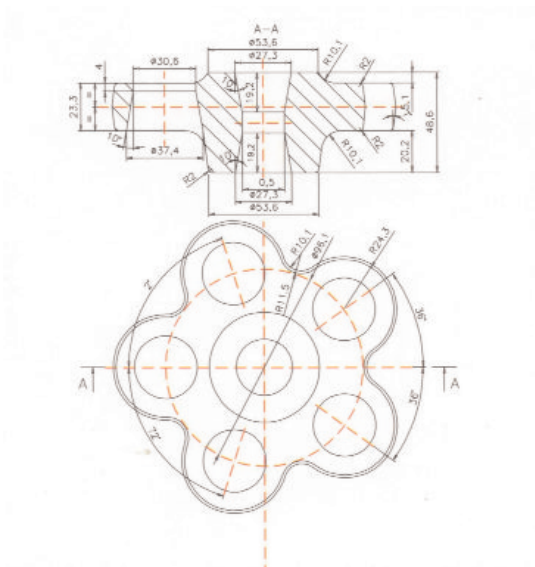
Pivots



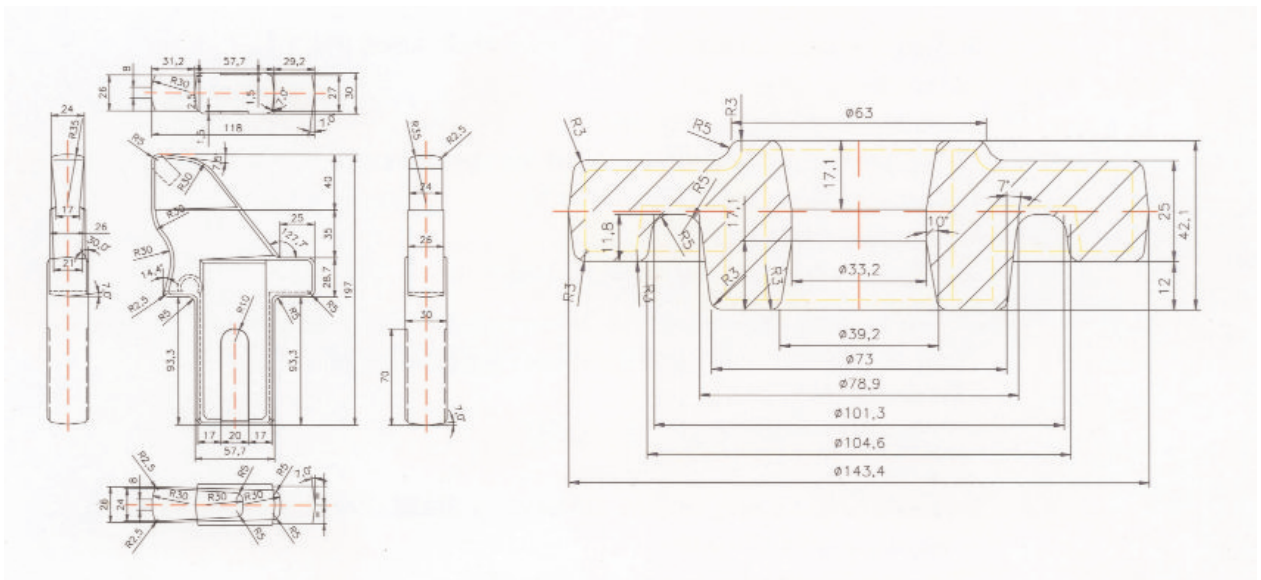
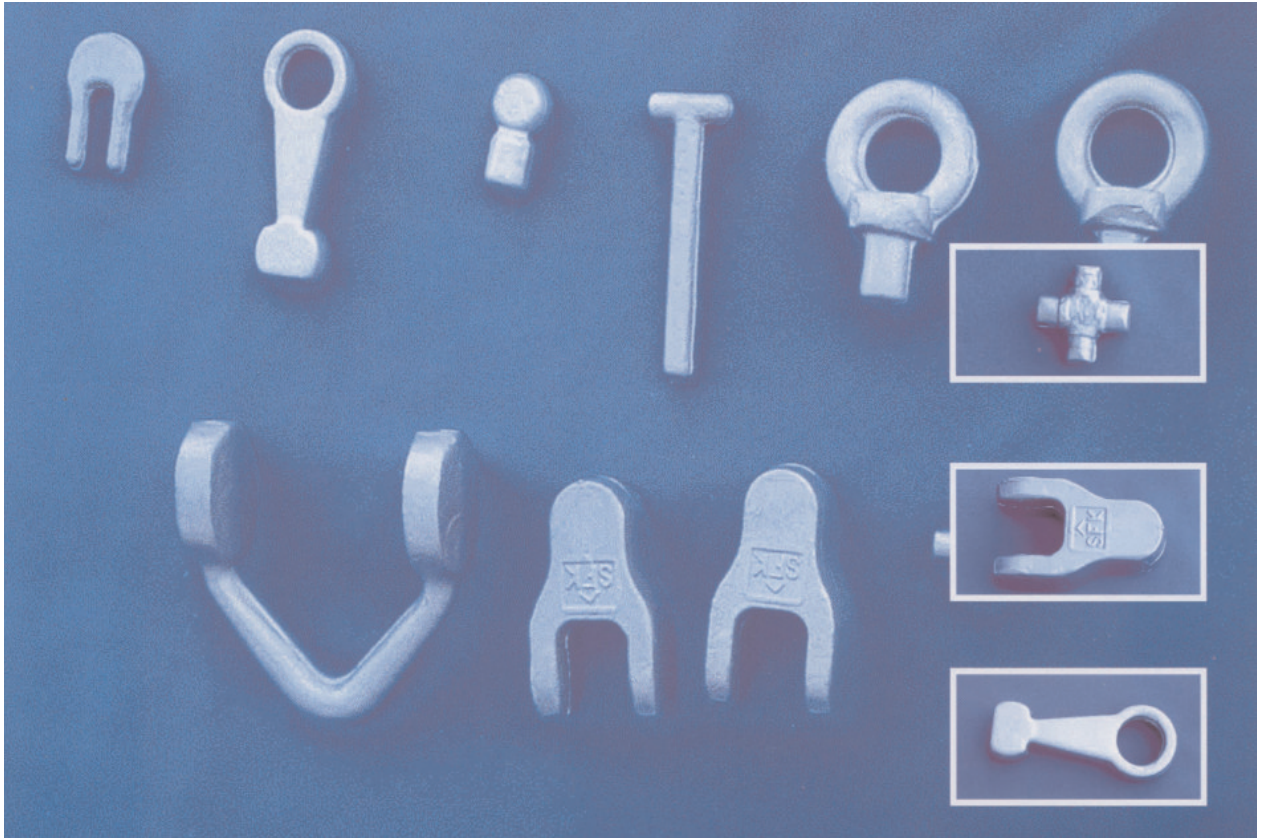
Forgings



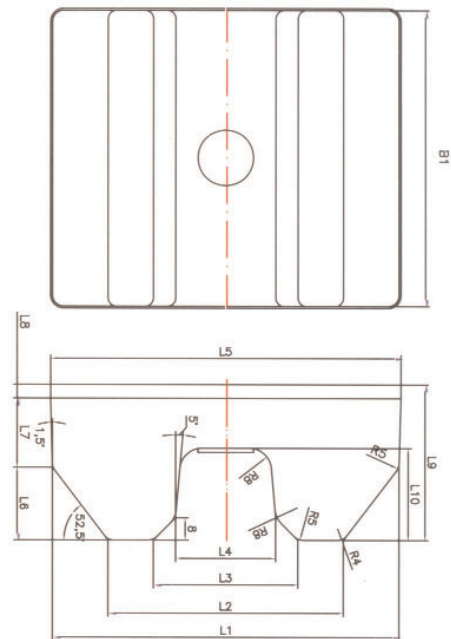
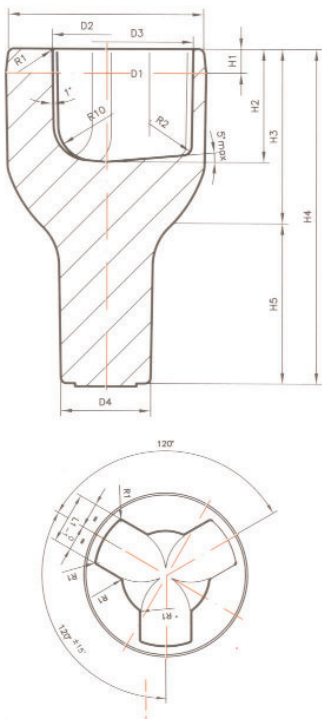
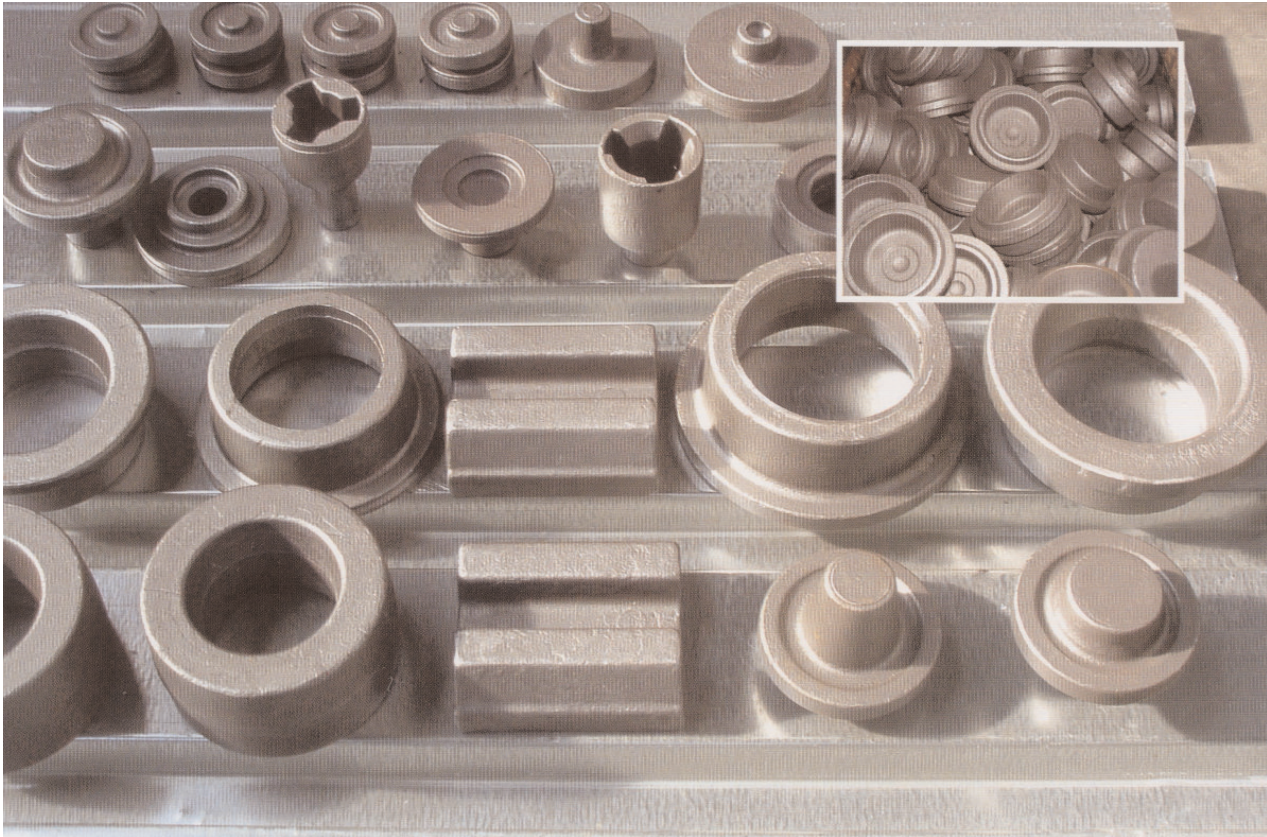
Other drop forgings items



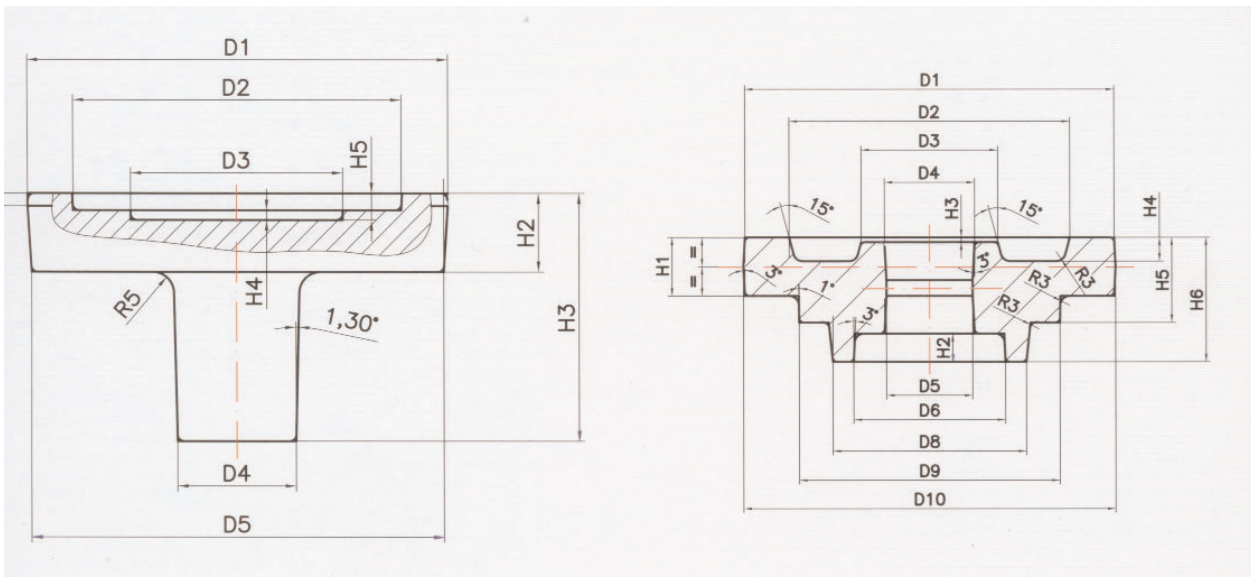
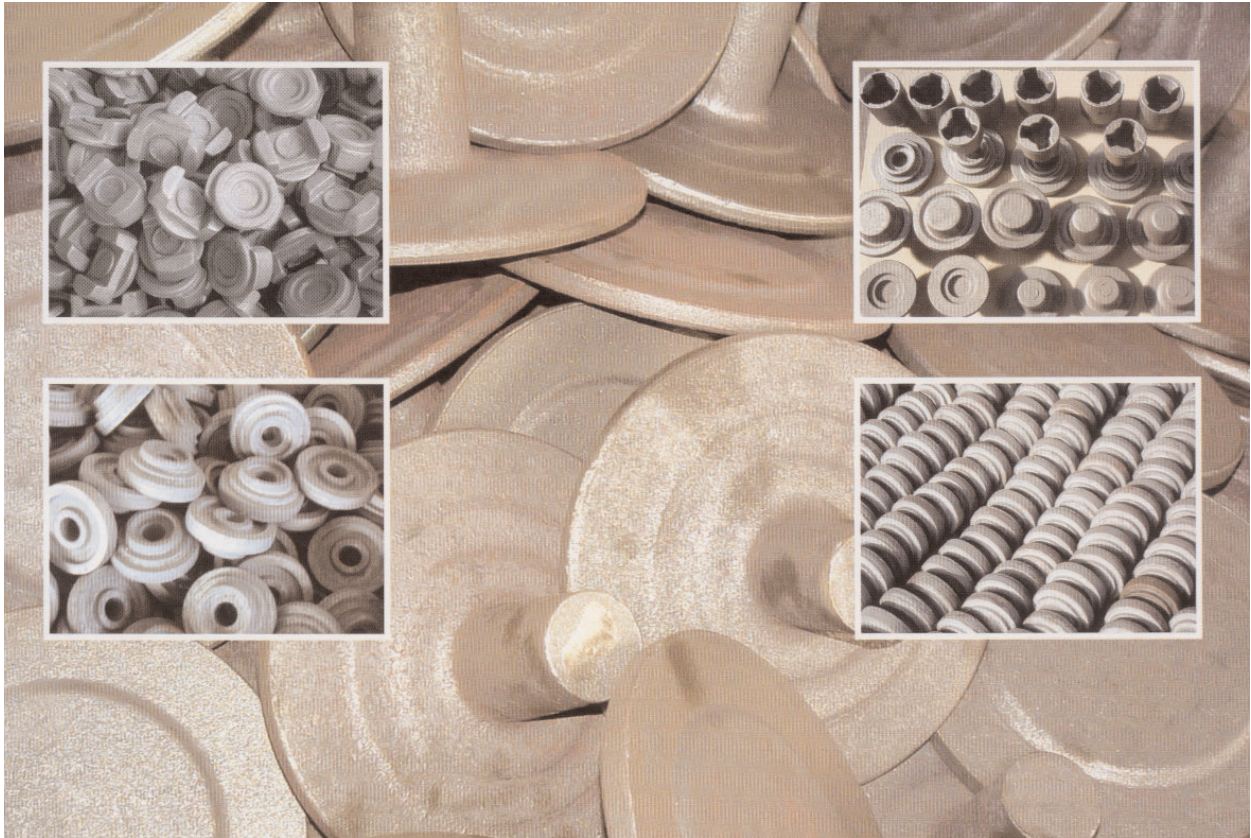
Forgings



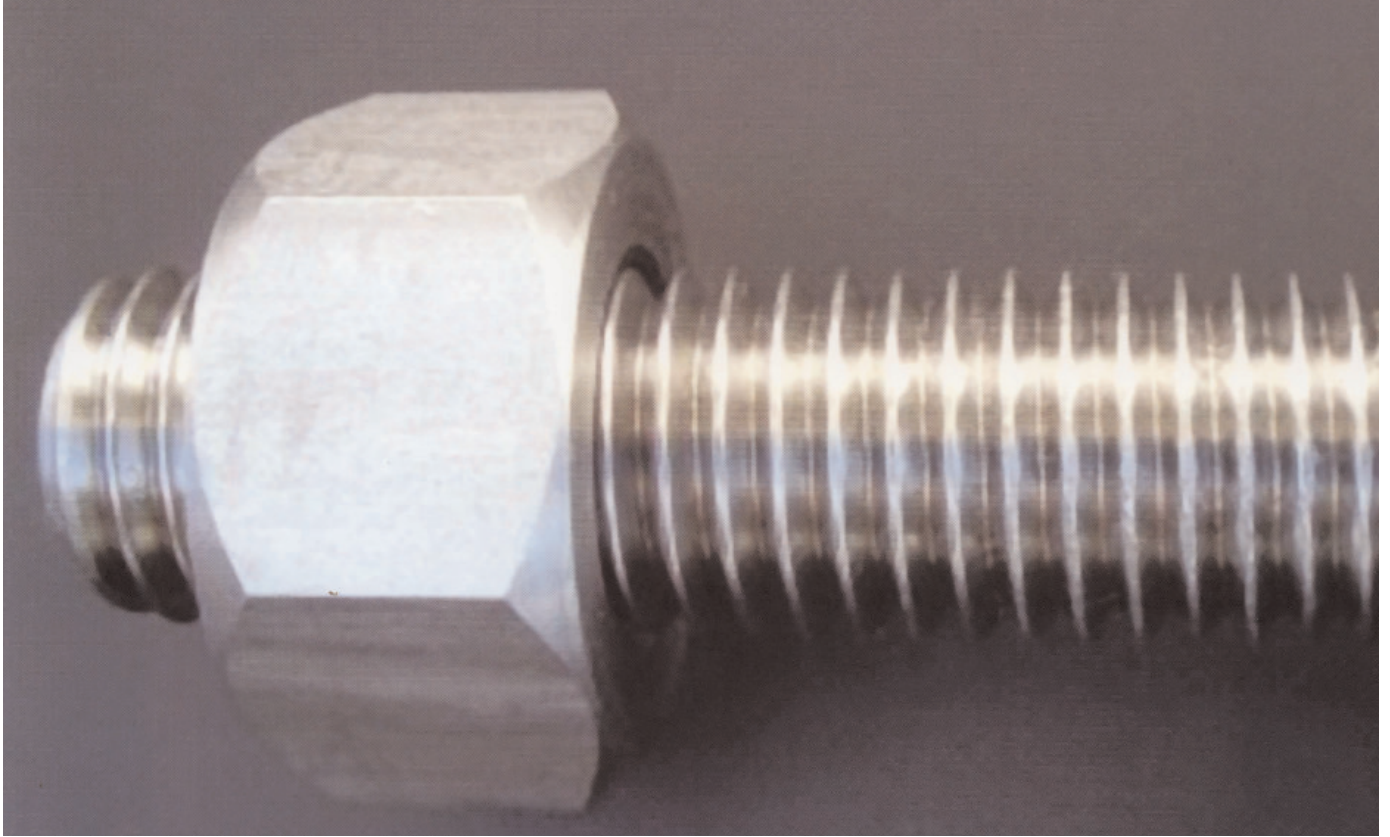
Forgings



Forgings



Fasteners (bolting materials)



Fastener (bolting materials) (bolts, stud bolts and nuts)

Hexagon Nuts with inch thread, according to ANSI/ASME B18.2.2;

- dimensions: $\frac{3}{8}$ " ÷ $1 \frac{7}{8}$ "
- mechanical characteristics: 2H; 2HM; 7

Prezoane cu filet in inch, conform IFI 136

- dimensions: $\frac{3}{8}$ " ÷ $1 \frac{7}{8}$ "
- mechanical characteristics: B7; B7M; L7; L7M

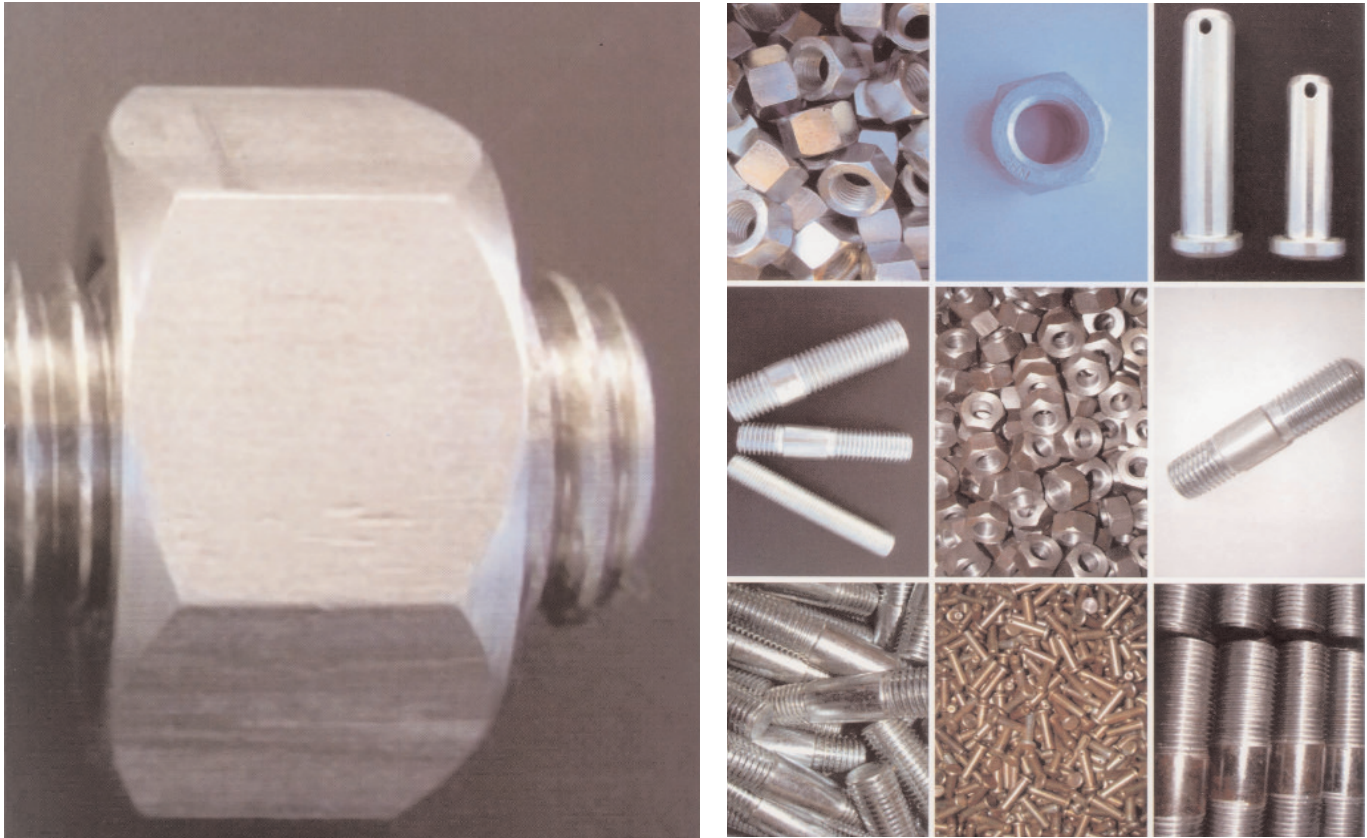
Piulite hexagonale cu filet metric, conform STAS 4071 si STAS 8121/3

- dimensions: M12 ÷ M48
- mechanical characteristics: gr.5; gr.8; gr.10

Prezoane cu filet metric, conform STAS4551 si STAS8121/2

- dimensions: M24 12 ÷ M48
- mechanical characteristics: gr.5.6; gr.8.8; gr.10.9

Fasteners (bolting materials)



Our products can be delivered by request with various protective coatings: browning, phosphating or zinc coating.

Being highly market-oriented we are able to produce any other fasteners according to customer drawings.

Heat Treatment



Heat Treatment

Forja Teknotech can offer you the following types of treatment:

- primary heat treatment;
- secondary heat treatment and high-frequency hardening;
- tratamente: ionic and carbide nitridation.

Equipment:

Resistance heated vertical furnaces

- Chamber dimension: Ø800x1600 mm
- Max Temp: 950° C degree

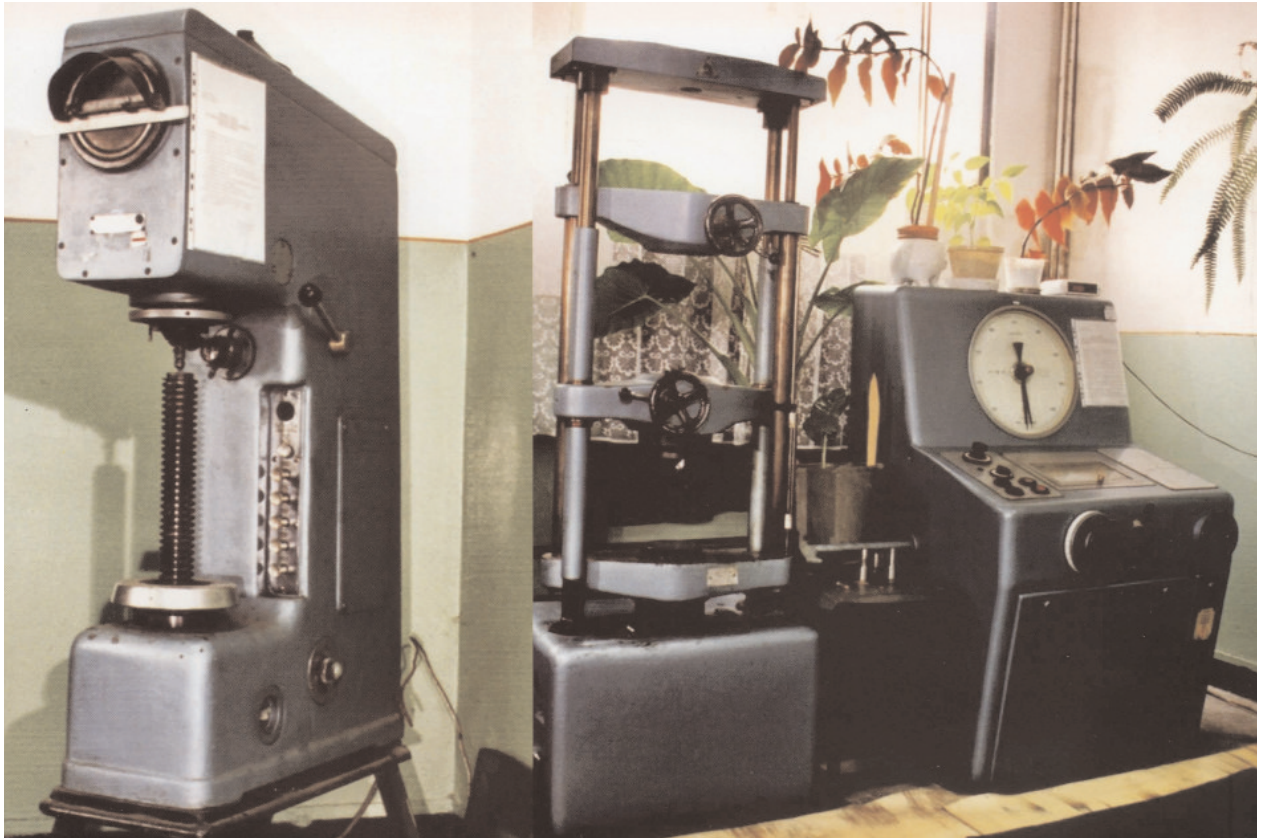
Resistance heated vertical furnaces

- Chamber dimension: Ø800x1000 mm
- Max Temp: 300-700° C degree

Cuptor de Nitrurare Ionica tip “Klockner”

- Chamber dimension: Ø1000x2000 mm
- Max Temp: 600° C degree

Quality



Quality

The Quality Management System, established and implemented within Forja Teknotech, is certified according to the requirements of ISO 9001:2000 international standard by the Romanian certification body CERTOM S.R.L., which is accredited by RENAR (Romanian accreditation body).

With modern and performant equipment and facilities, as well as mechanical testing, spectrochemical analyses and NDE laboratories, we determine and guarantee the quality of materials used to manufacture our products. Also, we are continuously improving our products, processes and systems.

Controlling:

For hardness tests we use different devices:

- Brinell, Rockwell, Vickers mobile microhardness testers
- Equotip electronic tester

For non-destructive mechanical testing we have:

- US flow detector, magnetic particle station, liquid penetrant spray.

For mechanical testing:

- Static tension testing machine
- Charpy hammer (KCU, KV).

A spectrochemical analyser (spectrovac 2000 BAIRD) is used for chemical analyses.



◀ ⚙ COMADEX ⚙ ▶