



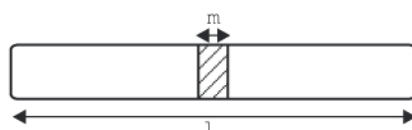
The Szabadalakító Forging Plant's manufacturing and supplying division can produce forged products listed as follows:

Round steel bars



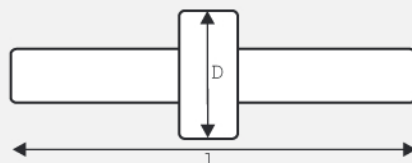
$d_{max} = 500 \text{ mm}$
 $l_{max} = 4000 \text{ mm}$
 $weight_{max} = 1800 \text{ kg}$

Flat bars



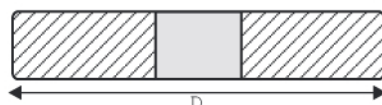
$m_{min} = 20 \text{ mm}$
 $l_{max} = 4000 \text{ mm}$

Shafts, camshafts



$D_{max} = 600 \text{ mm}$
 $l_{max} = 4000 \text{ mm}$
 $weight_{max} = 1800 \text{ kg}$

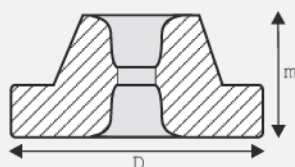
Disks, Punched disks



$D_{max} = 1500 \text{ mm}$
 $weight_{max} = 1800 \text{ kg}$

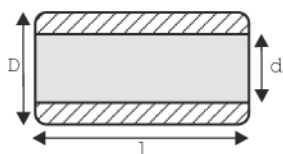
Forged flanges

according to DIN or EN 1092-1 or ASME B16.5 (size NW10-NW400 or 1"-36")



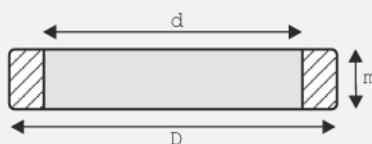
$D_{max} = 830 \text{ mm}$
 $m_{max} = 500 \text{ mm}$

Sleeves



$D_{max} = 800 \text{ mm}$
 $d_{max} = 600 \text{ mm}$
 $l_{max} = 800 \text{ mm}$

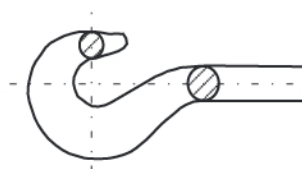
Rings



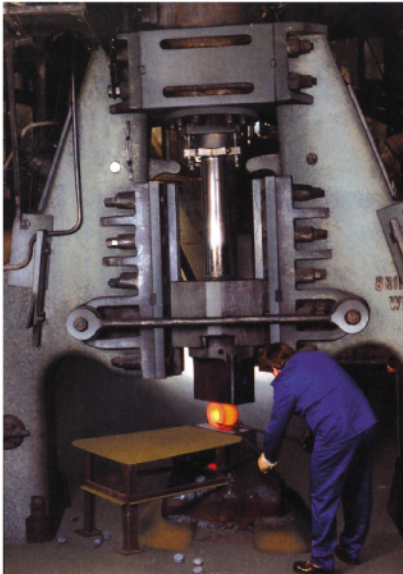
$D_{max} = 1600 \text{ mm}$
 $d_{max} = 1400 \text{ mm}$
 $m_{max} = 300 \text{ mm}$

Crain hooks

(with max. carrying capacity of 20 tons)



The properties of our forged products



We can also undertake the manufacture of die forged products of between 20-80 kgs if sufficient quantities are ordered

The products' surface can be scaly (after forging and heat treatment) or descaled by sandblasting

We also undertake the heat treatment and premachining of the forged products.

The types of heat treatment are normalization, stress relief, quenching, hardening and tempering, austenitic tempering and isothermal tempering.

Flanges or other individually discussed items we can also deliver machined to finished form.

All our activities is in accordance with the ISO-9001:2000 standard certified by TÜV Reinland. (Cert No: 75 100 9651)

Our quality assurance system and production also complies with the european PED 97/23/EC directives. (Cert No: 01 202 H/Q-04 0001).

The required mechanical and chemical analysis of our products is carried out either in our own laboratory or other approved ones.

Our products are delivered with quality certificates according to EN 10204 as per 2.1.; 2.2.; 3.1.; 3.2.

THE QUALITIES OF THE TYPICALLY USED BASE MATERIALS

Type of steel	Standards	Qualities
Steels for general structural purposes	DIN 17100	St52-3; RSt37-2; ...
	EN 10250-2	S235JRG2; S355J2G3; C25; C45; C60;...
Unalloyed quality steels	EN 10222-2, 4, EN 10028-2, 3	P245GH; P280GH; P355NH; P355QH1; P265GH, P355NL2; P460NL2 ...
Alloyed steels	EN 10222-2	16Mo3; 13CrMo4-5; 11CrMo9-10; ...
	EN 10222-3	13MnNi6-3; 12Ni14; ...
	EN 10083-1,2; EN 10250-3	34Cr4; 25CrMo4; 34CrMo4; 42CrMo4; ...
Case hardening steels	EN 10084	C10E; 16MnCr5; 18CrNiMo7-6
Stainless steels	EN 10222-5; EN 10250-4; DIN 17440 MSZ 4360;	X20Cr13; X6CrNiTi18-10; X6CrNiMoTi17-12-2; KO2; KO11; KO36; ...
Tool steels	MSZ 4352; DIN EN ISO 4957;	W3; W5; W6; K13; K14; NK; 56NiCrMoV7



Apart from the mentioned types above we also deal with other types of steel practically used in the industry. (Exemple: ASME SA105; SA 182; ...)