

*Time for Progress...*

# Heat-proof baskets

Specialist hardening accessories

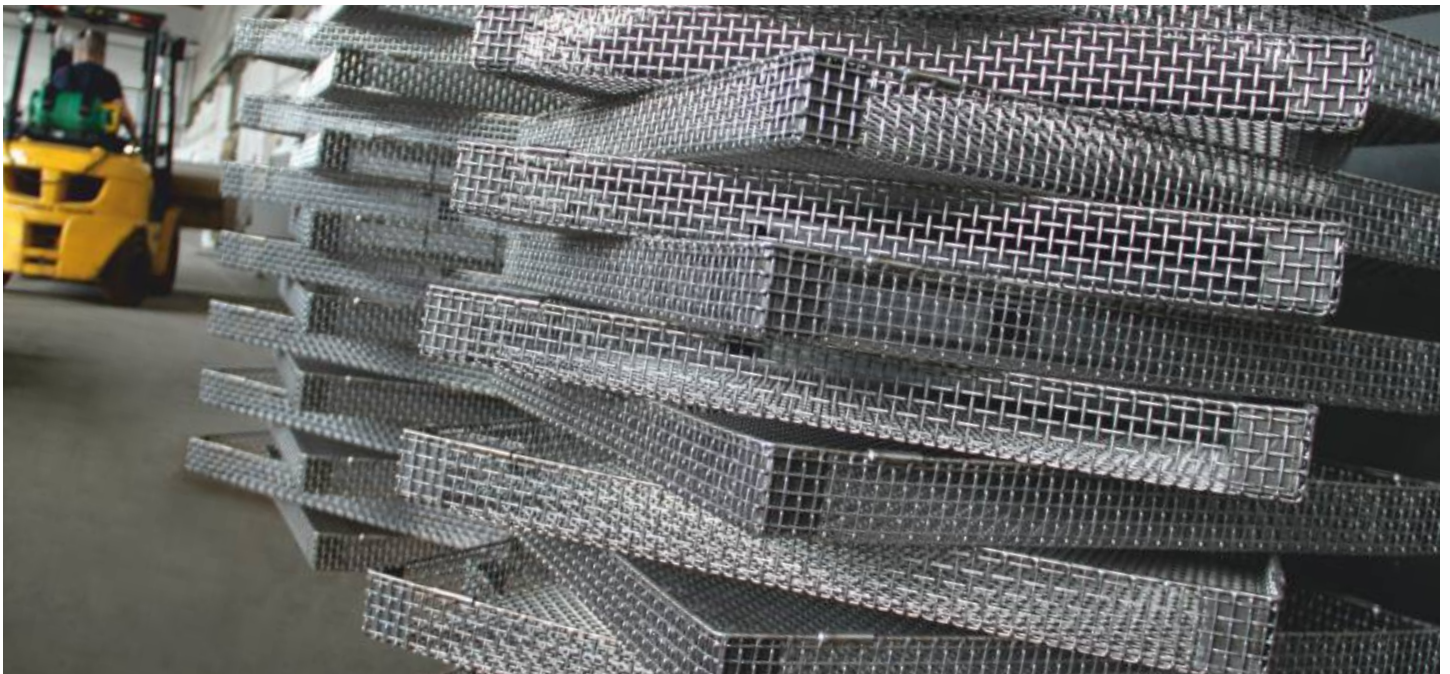


Producer of industrial screens



[www.progress-screens.com](http://www.progress-screens.com)

# Heat-proof baskets for hardening



## Progress Eco

Progress Eco is a manufacturer of industrial screens and derivative products, including heat-proof baskets and specialist hardening accessories. Since 1982 we develop and deliver products and solutions for filtration, separation, hardening, and technological transport processes in many industries. Our comprehensive manufacturing program, modern and extensive machinery, and professional consultancy and servicing support ensure the delivery of only optimal solutions to any application

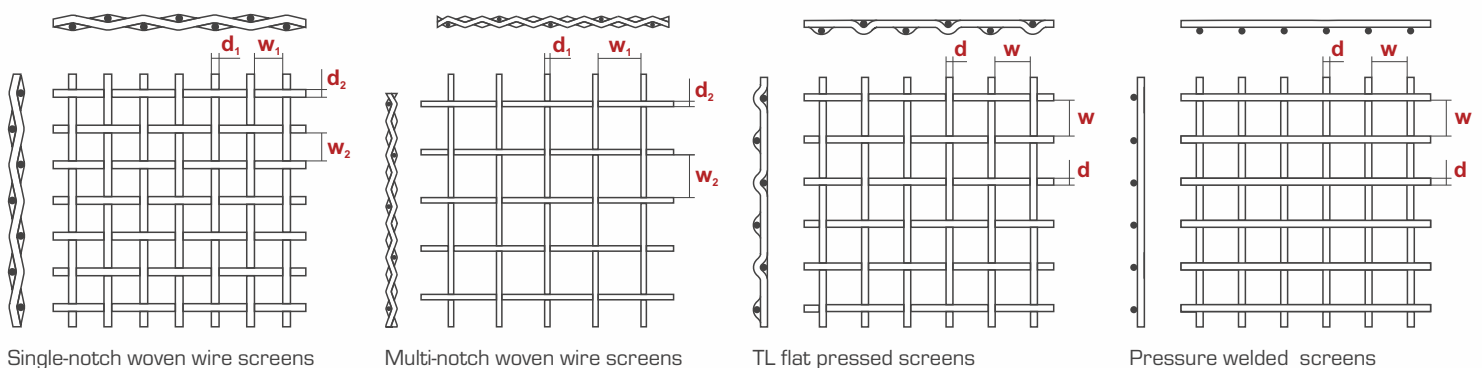
and operating specifications. Progress Eco employs over 200 persons, and has three production plants in Poland, own companies in Germany and the Czech Republic, and an extensive network of trade representatives and partners throughout Europe and in the world markets. The highest quality of our products has been confirmed by international certificates, as well as patents and utility models.

## Heat-proof screen and basket applications

We deliver the highest quality products made of heat-proof materials for hardening, mainly for the applications in pit and box-type furnaces, where heat treatment processes are performed in hardening baskets of various types and on trays with stacking options.

Besides box-type and pit furnaces, our products are also used in continuous, roller, and pusher furnaces, where hardened elements are laid in baskets of various types. This makes them transportable and protects against into the furnace and its oil tank.

Depending on individual needs, the heat-proof baskets and specialist accessories are made on the basis of single-notch woven wire screens, multi-notch screens, flat pressed screens, and pressure welded screens.



Single-notch woven wire screens

Multi-notch woven wire screens

TL flat pressed screens

Pressure welded screens

Designations: **d** - wire diameter; **w** - mesh size



## Technical specifications

Broad manufacturing capabilities ensure tailoring the screen type and specifications to individual customer requirements taking into account the hardened elements' shapes and sizes. We manufacture baskets according to our own or Customer's technical documentation. Baskets of various types are provided with additional reinforcements, such as frames or special bonding, with which their sizes and operating specifications can be customised.

Examples of heat-proof basket manufacturing options

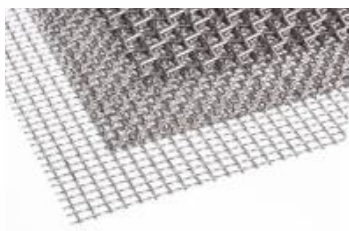


Wire technical specifications	
Wire diameter	Wire shape
0,8 - 12,0 mm	Round wire
Mesh technical specifications	
Mesh range	Mesh shape
1,0 - 100 mm	square, rectangular

**We manufacture heat-proof baskets to individual orders as per required technical specifications**

## Specialized accessories for hardening shops

Our heat-proof basket offering is complemented with spacers made on the basis of our industrial screens. Spacers of various types are used depending on the hardening process specific parameters.



Spacers made of woven wire screens (single-notch and multi-notch)



Spacers made of flat top wire screens (TL)



Spacer made of pressure welded screen (Rectangular mesh)



Spacer made of pressure welded screen (Square mesh)

## Materials

We ensure optimal material solutions based on a wide selection of top quality steel.

DIN	AISI/ASTM	UNI/DIN	Heat resistance Max C°
1.4841		X15CrNiSi25-20	1150
1.4828		X15CrNiSi20-12	1000
1.4301	304	X5CrNi18-9	400
1.4541	321	X6 CrNiTi18-10	450
1.4401	316	X5CrNiMo17-12-2	400
1.4571	316 Ti	X6 CrNiMoTi17-12-2	450
2.4816	Inconel 600	NiCr15Fe	1150
2.4851	Inconel 601	NiCr23Fe	1200

\* On request, we manufacture baskets and spacers also of other steel grades and other materials

## Professional technical advice



We provide our Customers with comprehensive and professional advice on the selection of heat-proof baskets and specialist hardening accessories. On the basis of many years of experience we assist in selecting optimal technical specifications for heat-proof baskets, industrial screens, and manufacture materials depending on the application and hardened products' characteristics. We ensure the availability of a group of specialist technologists and technical advisers.

**Contact our technical adviser today, and schedule their visit in your manufacturing plant. We will present our offering for hardening shops.**

## Complete program of industrial screens manufacturing



### Wedge wire screens

- Slot: from 0,05 mm (50 micrometer)
- Max. size: 3500 x 4000 mm
- Material: stainless steel, carbon steel
- Wire: standard wire Sbb type, special wire Sbb type



### Wedge wire tubes

- Slot: from 0,02 mm (20 micrometer)
- Max. length: 6000 mm
- Material: stainless steel
- Internal and external flow



### Tytan pressure welded screens

- Aperture: 7,0-200 mm
- Ø wire: 4,0 - 22,0 mm (simple, pressed, profiled HT i GZ)
- Width max. 1500 mm;
- Langht - according to requirements
- Material: manganese steel (patent), stainless steel



### Fine wire mesh

- Mesh: from 0,02 mm
- Type: simple weave (plain) and oblique wave screens
- Maximum width: 4000 mm
- Maximum length: 20000 mm



### Woven wire screens

- Mesh: 1,0 mm - 100 mm
- Ø wire: 0,8 - 6,3 mm
- Material: carbon/spring/stainless steel, aluminium
- Available finishes: galvanized steel, Pro-ZINAL (ZnAl), varnished steel
- Maximum width: 4000 mm



### Flat top wire screen

- Mesh: from 10,0 - 150 mm
- Ø wire: 2,5 - 12,0 mm
- Material: spring steel, stainless steel, carbon steel, aluminium
- Available finishes: galvanized steel, varnished steel

## Certificates

Our staff includes an experienced team of engineers, whose qualifications have been verified by European certificates, such as, inter alia, a welding certificate.

We implement quality control systems in accordance with the procedures and instructions of our **ISO 9001 Quality Assurance System Certificate**.

### The Quality Management System covers:

Design and manufacture of welded, woven perforated, harp, and woven polyurethane screens, and products and equipment for processing industries; design and manufacture of machinery and devices with screens and tanks, including pressure vessels and fittings.



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