

HARD FACING SOLUTIONS

DEEMEX
WEAR PLATES



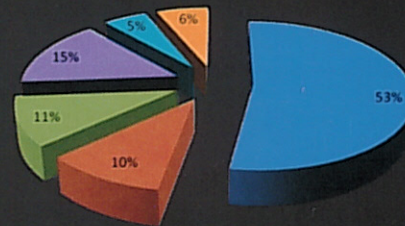
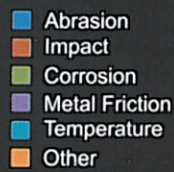
Introduction

ELKAT SA has strived to improve existing technologies and develop new products against abrasion. DEEMEX Plates is a range of products that meets the requirements of total wear solutions, based in the creation of high density Chromium Carbide Matrix. **It is worldwide known that Chromium Carbides in the matrix are responsible for wear resistance and hardness in the other side has a minimal effect on reducing abrasion loss.**

Advantages

In industry there is always a combination of wear mechanisms that makes all kind of equipment to fail. Have you ever consider the real damage in single mechanism proportions?

Equipment Failure



DEEMEX products guaranties high profitability in ore mines, power plants, refineries, cement industries and similar industrial applications, because are:

- Most cost effective way to combat abrasive wear, due to uniform deposition of Carbide Matrix in all hard facing thickness.
- Easy applicable to large scale projects.
- Minimizing maintenance and repairs.
- Decreasing maintenance needs and production downtime.
- Profiling to any size and shape (special applications).
- Wide range of custom overlays.
- Engineering support through process and maintenance.
- Installation of new or semi finished parts by specialized stuff.

The use of Hard Facing Technology is worldwide known, especially in USA and Western European Countries.

Products

Our engineers have 40 years of experience in constructions. So they have developed the best solutions in wear problems. DEEMEX Plates are reducing maintenance and operating cost providing longer service life. In our production line which is suited in Greece (EU), we assure quality by analyzing the microstructure and chemical composition in every batch. All the production is fully automated and all raw materials are checked for purity and test certificates. The finished product is checked for composition, carbide content, tolerances, crack dimension and straightness from fully equipped testing lab.

We deliver DEEMEX Plates with all certificates DIN 50049-2.2 for coating and EN 10204:2004-3.1 for base plates, according to EN ISO 9001:2008.

The newest production line of DEEMEX Plates employs PLC controlled systems ensuring uniform coating bead width and various welding shape imprints.

DEEMEX Plates outlast in high abrasion applications quench and tempered steels by up to 9 times and up to 42 times mild steel according to ASTM G65-00 standard testing.



DEEMEX SERIES

Wear Plates	C. (%)	Cr. (%)	Other Elements	Hardness Rockwell	Plate Thickness	
					Plate	Coating
DMX 100	2.7-4.3	17-29	Mn, B, Mo, Fe	50-56	≥4mm	≥3mm ≤10mm
DMX 105	4.1-5.1	30-32	Mn, B, Mo, Fe	56-60	≥4mm	≥3mm ≤10mm
DMX 110	4.9-5.5	32-35	Mn, B, Mo, Fe	60-64	≥4mm	≥3mm ≤12mm

The Wear Plate Series (DMX100, 105, 110) comes with Standard Base Material.

STANDARD DEEMEX PLATES

STANDARD BASE SHEET DIMENSIONS	STANDARD BASE MATERIAL	OPTIONAL BASE MATERIALS
900 X 900mm 1150 X 2400mm 1400 X 2900mm	S235JR	Wear Resistant Steels Stainless Steels P265GH P275GH

Customers

After many years of economic losses due to abrasion, highly industrialized countries embrace Hard Facing Technology. This is because hard facing technology reduces maintenance costs, minimizes the number of repairs, reduces downtime and generally makes the life of engineers easier.

DEEMEX technology reduces also investment costs because carbon steel (S235JR) is used as base material even under high abrasive conditions. The industries that mainly effected from this technological achievement are:

Cement Industries
Coal-fired Electric Power Stations
Iron and Steel Industries
Brickworks
Quarries, Sand and Gravel Works
Mining and Opencast Mining Industries
Waste Incineration Industries
Recycling Industries

Typical Applications

Deemex series		
WEAR PLATES	HARDNESS ROCKWELL	APPLICATIONS
DMX 100	50-54	Crusher parts, bucket lips, conveyor screws
DMX 105	56-60	Chutes, Feeders and Scrolls, Mixer blades and components, Rotor blades for fans in cement industries, wearing parts for Dedusting systems, Pipes, Scrapers, Mills
DMX 110	60-64	Dredge Pump parts, Hoppers, Crusher Rolls, Screw Conveyors, Blast furnace, Sinter plant, Cement kilns, Exhaust fan blades, Pearlite crushers, Mixing tools, Bunker cladding, Excavator shovels, Shovel bucket teeth

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DEEMEX Plates can be (cold, hot) formed at customer will. Various components like chutes, hoppers, pipes, cyclones and similar items are fabricated from our fully equipped workshop.

Engineering Support: The additional Benefits in hard facing needs.

ELKAT SA is a specialized metal constructions company. Customers may benefit from a full engineering support. Our plant has organized departments for:

- CAD/CAM PROFILED.
- PLASMA /LASER PROFILED.
- DRILLED AND BOLTED.
- BEVELLED.
- BENDED & ROLLED (MIN DIAMETER 250 mm).
- WELDED TO VARIOUS APPLICATIONS.

Therefore we may develop tailor made solutions with DEEMEX coverings, any hard facing needs using your designs and many more.