



BATI HEAT TREATMENT



LOCATIONS



Monterrey/Mexico Plant

- *Established in 2018*



İzmir/Turkey Plant (HQ)

- *Established in 1990*
- *Moved to its new place in 2002*





MARKETS

❖ AUTOMOTIVE INDUSTRY

❖ HVAC

❖ MILITARY

❖ AGRICULTURE

❖ TOOL MAKING



KEY FACTS



2 Locations



Treating more than 28,000 Tons yearly



TR Plant 100+ Employees
MX Plant 20+ Employees



TR Plant

- ✓ 8 Atmosphere Controlled Furnaces
- ✓ 17 Tempering Furnaces
- ✓ 5 Nitriding Furnaces
- ✓ 1 Aluminum Hardening Furnace
- ✓ 1 Vacuum Furnace
- ✓ 3 Induction Hardening Units
- ✓ IATF 16949:2016
- ✓ ISO 9001:2015
- ✓ ISO 14001:2015
- ✓ Compliant with CQI-9 requirements



Approved Supplier of
Global Manufacturers



30+ years experience
in industry

MX Plant

- ✓ 5 Atmosphere Controlled Furnaces
- ✓ 7 Tempering Furnaces
- ✓ 1 Nitriding Furnace
- ✓ IATF 16949:2016 (In process for 3rd Qtr 2022)
- ✓ ISO 9001:2015
- ✓ Compliant with CQI-9 requirements



MONTERREY PLANT





HEAT TREATMENT TECHNOLOGIES



MONTERREY PLANT



Useful Dimensions and Capacity

- ✓ 860mmx1220mmx560mm(h)
- ✓ 1000kgs gross

ATMOSPHERE CONTROLLED FURNACE LINE

- ✓ 5 Main Furnaces
- ✓ 7 Tempering Furnaces
- ✓ 1 Endogas Generator
- ✓ 2 Washing Machines
- ✓ 2 Loading&Unloading Cars
- ✓ Full Automation System

Capabilities

- ✓ Carburizing
- ✓ Carbonitriding
- ✓ Normalizing
- ✓ Through Hardening
- ✓ Isothermal Annealing
- ✓ Carbon Restoration
- ✓ Full Annealing
- ✓ Stress Relieving
- ✓ Ferritizing



HEAT TREATMENT TECHNOLOGIES



MONTERREY PLANT



Capabilities

- ✓ Nitriding
- ✓ Nitro-Carburizing
- ✓ Postoxidizing

NITRIDING FURNACES

- ✓ 2000kg KGO Furnaces with **STANGE** controllers
- ✓ Process Control System with KN-KC control
- ✓ NH_3 Cracker for zero White layer thickness

Useful Dimensions and Capacity

- ✓ 900mm x 1200mm x 900mm(h)
- ✓ 2000kg gross capacity



QUALITY CONTROL EQUIPMENT



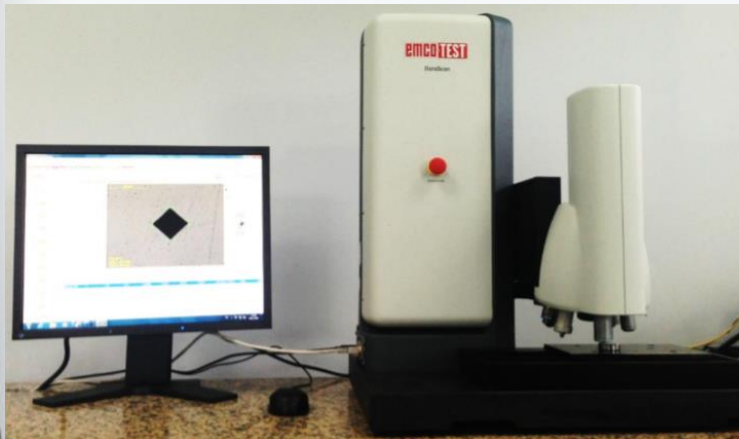
MONTERREY PLANT



NIKON METALLOGRAPHIC MICROSCOPE

- ✓ Clemex software to analyze:
 - ✓ *Grain size measurement according to ASTM*
 - ✓ *Phase content measurements*
 - ✓ *Intergranular oxidation detection*
 - ✓ *Depth of decarburization*
- ✓ *Up to 1000x magnification*

MICROVICKERS HARDNESS TESTER



- ✓ *2 x EMCOTEST Durascan*
- ✓ *Automated x,y,z axis control*
- ✓ *Automatic Case Depth Measurement*

Capabilities

- ✓ *0,01 to 10 kgf loading capacity*
- ✓ *Knoop and Vickers test methods*



QUALITY CONTROL EQUIPMENT



MONTERREY PLANT



HARDNESS TESTER

- ✓ 1 x EMCOTEST DuraJet Hardness Tester
- ✓ HRC, HRN, HB test methods
- ✓ 1-250 kgf loading capacity



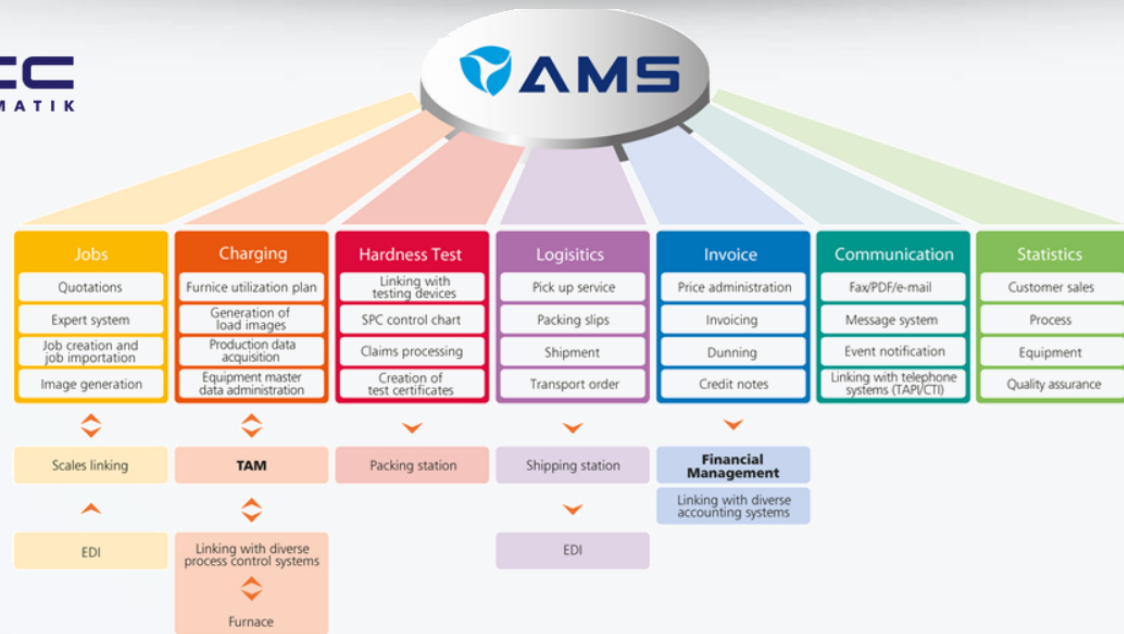
STRUERS METALLOGRAPHIC SAMPLE PREPERATION EQUIPMENT

- ✓ Discotom Cutter
- ✓ Tegramin Grinder&Polisher
- ✓ Citopress Mounting Machine



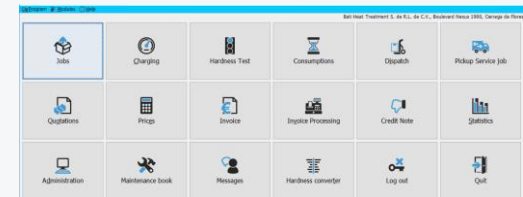


PROCESS MANAGEMENT




AMS (Administration Management System)

- Order to Invoice Management
- All Furnaces linked with AMS through a SCADA system
- Foolproof structure for all processes
- Full traceability






PROCESS MANAGEMENT

 Anıl Bayram Alaçam

2019-0098057-2 / 2 19.09.19



Hammadde 1.1189/C40R/Cm40/C40/1040 Termin 24.09.2019
Teknik Resim Sipariş No. 104.123 Ağırlık 0,193902/245,0927 kg
Tanım SOMUN Miktar 1264
Müşteri-Ref. No Çizim No. Tesl.Belg.
Detay Numarası
Ambalaj 1 TAHTA PALET
20 ÇUVAL

SEPETLERE KAT ATILARAK SERİLECEK.

Gerekli-Ön veriler 24-26 HRC * Değer değiştime ISO 18265 - 266-269 HV - B.2 - HRC
Yüzey Sertliği 24-26 HRC 24-26 HRC * Değer değiştime ISO 18265 - 261-265 HBW - B.2 - HRC
24-26 HRC * Değer değiştime ISO 18265 - 802-841 MPa - B.2 - HRC

Seri: (Örnek:2019-0091555-1)
Min. değer/şarj: 550 kg

MN2+I-AKF+MN2 | 860C 30 dak. 80.40Cp 60C 1400dev/dak. | + |
550C
İş Planı: 2h | G1 + Ön Yıkama + Yıkama + Ara Sertlik Kontrolü
Isıl İşlem Tipi: Islah Atmosfer Kontrollü Fırın

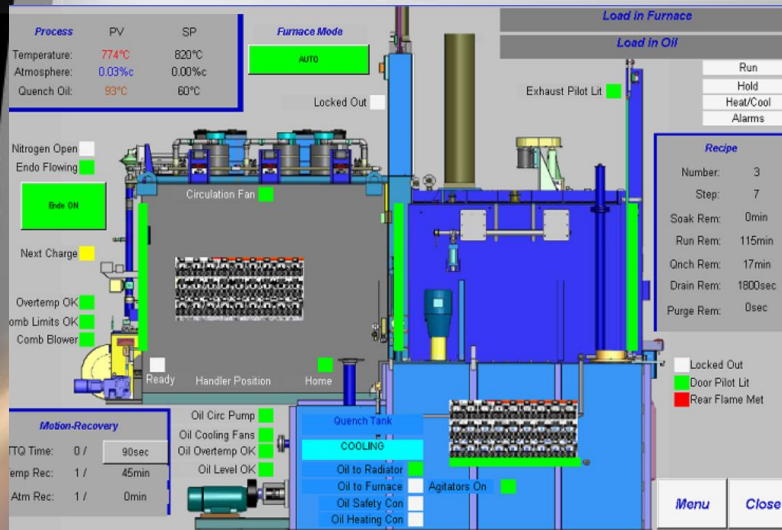
No	Tanım
1	Giriş Kalite Kontrol Ek 08/7.25 e göre uygula.
2	Aparatlama
3	Ön Yıkama
4	273 (PE) (500 °C / --- / ---)
5	25 (PE) (860 °C / 30Dak. / ISORAPID 277HM 60C 1400DEV/DAK.)
6	Yıkama
7	Ara Sertlik Kontrolü
8	285 (PE) (550 °C / 2Saat / ---) 19.09.2019 T-33 AKF4 25 ---
9	Sertlik Kontrolü
10	Final Kalite Kontrol
11	Serviyat

AMS WORK ORDERS

- Unique traceability number with a linked barcode
- Part photograph
- Shipping information
- Measurement Specs
- Workplan including furnace recipes
- Fixturing instructions and other special characteristics
- Min/Max Load quantities

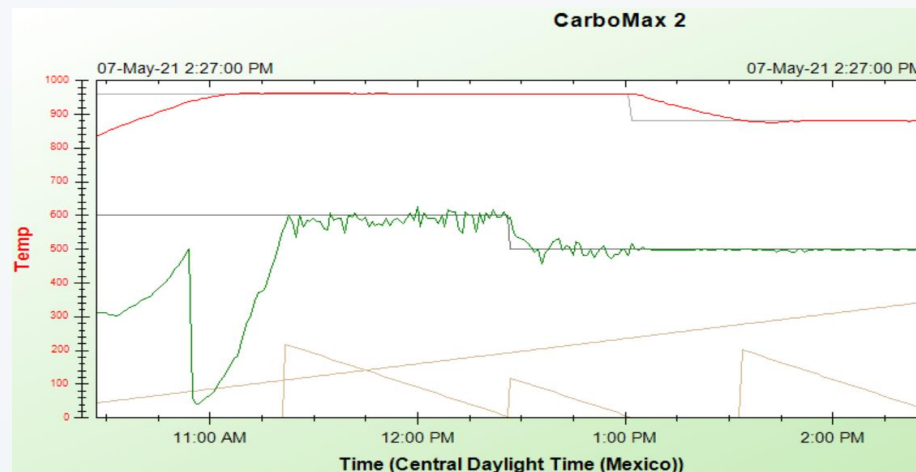


PROCESS MANAGEMENT



FURNACE MANAGEMENT

- All computer controlled
- All furnaces linked to AMS
- Full traceability of furnace parameters and alarm history
- Advanced recipe management system





CERTIFICATIONS



MONTERREY PLANT



- ✓ ISO 9001:2015
- ✓ Compliant with CQI-9 requirements
- ✓ IATF 16949 in process for 3rd Qtr 2022



MAIN CUSTOMERS PROJECTS

Tr & Mx

