The first phase of MATALCO’s extrusion scrap recycling facility, with capacity to produce 200,000,000 lbs of prime quality billet annually, was achieved when the plant became fully operational on May 23rd. The 110,000 sq. ft. plant is located on a 14 acre property adjacent to the new Triple M Metal aluminum scrap storage and preparation building (Figure 1). All the scrap metal that MATALCO will need, in addition to the toll conversion scrap returning from billet customers, is purchased by Triple M Metal and sold to MATALCO.

The grand opening on June 8th of MATALCO Inc. celebrated completion of Phase I for the aluminum remelt and casting facility designed from the outset to be North America’s leading producer of prime quality extrusion billet (Figure 2). MATALCO breaks new ground in the recycling of aluminum extrusions as no other operation cleans this scrap prior to batch melting or combines the purchasing power of a major scrap dealer with a state-of-the-art remelt and a casting system.

Triple M Metal is a sprawling recycling facility, which although hidden from the highway, covers 45 acres alongside it. Situated in an industrial corridor north of Highway 407 at the junction of Goreway Road and Intermodal Drive in Brampton, a city adjacent to Toronto, Ontario, Triple M enjoys proximity to Canada’s largest airport, Pearson International as well as vast rail marshaling yards.

Industry veteran and part owner Leon Kozierok, a metallurgical engineer with 40 years experience in metal recycling, leads the operation as president and ceo. He became involved in MATALCO upon his retirement after almost 25 years as president of Indalloy, the billet casting subsidiary of Indalex Ltd.

It is Kozierok’s belief in the future of aluminum scrap recycling that has brought together the interests and the technologies required to efficiently recycle both clean and contaminated scrap into first class extrusion billet. The concept was proven with a feasibility study, the results of which were then used to design an efficient and cost-effective plant, capable of producing products of a quality equivalent to the best available in the marketplace, while meeting all current and perceived future safety and environmental standards.

Drawing on skills from other industries, previous coworkers, and people known to him in the industry (as well as a few newcomers) for the processing, remelting, and casting of aluminum scrap into extrusion billet, Kozierok has assembled an impressive team to run this state-of-the-art facility (Figure 3).
The streamlined operation with what is believed to be the most advanced remelt and casting technology and equipment in the world is now running full crews seven days a week.

The raw materials consist of scrap aluminum from Triple M, press scrap acquired through a tolling arrangement with extrusion customers, alloy additions, and prime aluminum ingot. The material flow is arranged in a straight line. All scrap is received at one end, analyzed, sorted into bins, and kept indoors. The scrap is then cleaned and blended into charging buckets before charging into one of two tilting, top-charging melting furnaces (Figure 4).

From the DC casting pit to finished product, the process is fully automatic.

The entire front end of the process, from delacquering to DC casting pit, was supplied, installed, and commissioned by Mechatherm International Ltd., in the U.K. The DC tooling is from Wagstaff in the U.S. The homogenizing, sawing, and packaging technology was supplied by a joint venture between HPI in Austria and Canefco Ltd. in Canada. (Canefco was recently acquired by Advanced Combustion Inc. (ACI) of Concord, Ontario, Canada.)

The first cast was made on December 9th, 2005. Since that time, production and shipments of log and cut billet have been accelerating to meet ever-increasing demand. MATALCO started seven-day operations on May 23rd, 2006 with a full staff of less than 50 people in place, including four crews of five persons and maintenance personnel. The certification process for ISO 9001 and ISO 14000 has started and will be completed by year-end.

The plant is designed to enable doubling capacity (Phase Two) when the market warrants. This would include doubling the size of the existing building and purchasing new equipment.

From scrap aluminum and press scrap, MATALCO is now producing primary-quality billet, supplying North American extruders up to 500 miles away in a sales area extending to Illinois and New Hampshire. At the end of June, Matalco had already shipped product to two Canadian provinces and eight U.S. states to 30 different extruders for supplier approval. Kozierok believes extruders will be well served by an independent supplier that will always be ready to ship top quality extrusion billet.