



WHEN MOVING
MATERIAL MATTERS

CDM 
Systems, Inc.
a  Global company



CUSTOM-ENGINEERED CONVEYING SYSTEMS

BEST PERFORMANCE FOR ANY INDUSTRY

LOWEST COST OF OWNERSHIP

SERIOUS CONVEYING SYSTEMS FOR YOUR SPECIFIC APPLICATION

CDM WAS STARTED MORE THAN 40 YEARS AGO WITH THE SINGULAR MISSION TO PROVIDE OUR CUSTOMERS WITH THE LONGEST LASTING, MOST EFFICIENT CONVEYOR SYSTEMS FOR THEIR SPECIFIC APPLICATIONS.



Today our systems offer the best solutions to the bulk material-handling problems that face our global customer base. We deliver unmatched durability and value for even the most aggressive material transfer applications.



Superior equipment is only part of the CDM difference. **WE'VE EARNED OVER 85% REPEAT BUSINESS BECAUSE WE'RE MORE THAN JUST A CONVEYING SYSTEMS MANUFACTURER WE'RE YOUR BUSINESS PARTNER.**



Before we spec out any project, we work directly with you to thoroughly understand your business needs. We then recommend a custom-engineered system that often lasts up to three times as long as competing equipment.



Our simple system designs, construction materials, workmanship and QA/QC procedures create quality and performance you can count on, all with a low cost of ownership. We can also perform a full test run prior to delivery to virtually guarantee fit and performance.

WE SOLVE YOUR INDUSTRY'S BIGGEST CONVEYING PROBLEMS

CUSTOM-ENGINEERED CONVEYING SYSTEMS

PROBLEM

Poor productivity, high operating costs, not achieving maximum capacity and throughput.



SOLUTION

With decades of application knowledge and expertise, we have mastered the balance of housing design, chain selection, speed and flight style to provide maximum productivity and durability.

PROBLEM

Extreme temperatures and abrasiveness that cause equipment fatigue, failure and excessive maintenance.



SOLUTION

CDM Systems can handle harsh conditions and aggressive materials that destroy other conveyors. Our chains are engineered to withstand high inlet temperatures without annealing or softening.

PROBLEM

Material waste, degradation and dangerous working conditions.



SOLUTION

With smooth movement, abrasion resistant steel casing and totally enclosed housing to contain dust, a CDM system won't compromise the quality of your material or the safety of your employees.

FROM ASH TO ZINC, EN-MASSE CONVEYORS HANDLE IT ALL

En-Masse Conveyors offer the most efficient form of material handling for a wide range of industrial sectors from mining, energy and utilities to steel, light ore, chemical plants and more. Our exclusive chain formula sets the carburized case hardness at 550-650 BHN and the core hardness at 300-400 BHN.

This achieves the ideal balance between flexible and rigid, offering high strength and wear resistance while providing a malleable core that prevents breakage. This chain metallurgy makes our conveyors the most effective way to move harsh, caustic, corrosive and abrasive materials with inlet temperatures up to 1000°F.



THE CRITICAL “MUSTS” OF EVERY CDM CONVEYOR DESIGN INCLUDE:

EFFICIENCY

Must provide lowest cost of ownership by maximizing use of materials, energy and labor

RELIABILITY

Must match the specific application criteria to provide long service life

STRENGTH

Chain formula must withstand low-speed/high-torque applications and resist wear and elongation

DURABILITY

Must deliver 24/7/365 operation with the most difficult materials

FATIGUE/WEAR RESISTANCE

Must handle cycling and chain articulation around sprockets

EN-MASSE CONVEYORS: MORE THAN JUST MUSCLE

**EN-MASSE CONVEYORS ARE NUMBER ONE
IN CAPACITY VS. INSTALLATION AREA REQUIRED.**

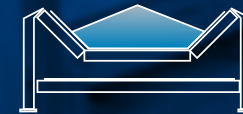
In horizontal applications, these conveyors can handle up to 90% of the cross-sectional area, resulting in a smaller piece of equipment to handle the same or greater capacities over other conveying technology.



THE PRINCIPAL OPERATION OF AN EN-MASSE CONVEYOR is based on material movement using a skeletal chain and flight assembly that is drawn along the bottom section of an enclosed housing.



EN-MASSE CONVEYOR = UP TO 90% EFFICIENCY



**Belt Conveyor
20-25%**



**Screw Conveyor
45%**



**Drag Conveyor
45%-85%**

En-Masse conveying is the best selection for high-volume material handling with minimal degradation. This unique method moves bulk materials smoothly, gently and economically across planes and around bends in an abrasion-resistant steel housing. There is no internal disturbance or pressure on the material and the load can be discharged at any opening.

OUR CHAIN IS THE DIFFERENCE

BETWEEN POTENTIAL CATASTROPHIC FAILURE AND LONG-TERM OPERATION AT FULL CAPACITY



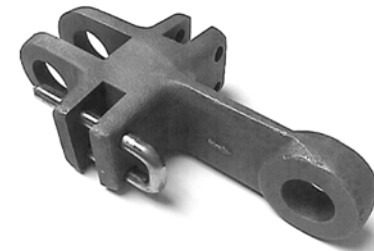
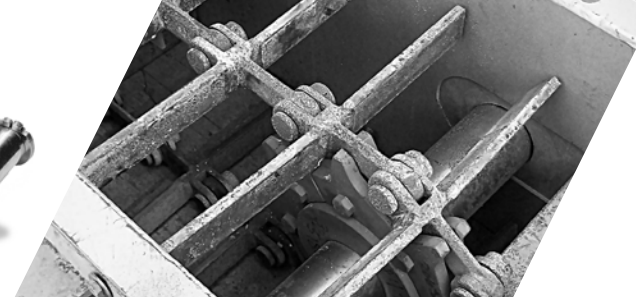
WE ENGINEERED OUR EXCLUSIVE CHAIN FORMULA OVER 40 YEARS AGO.

We knew that only making the chain hard would induce brittleness, and only making it malleable would make it susceptible to wear. Neither condition is acceptable for moving bulk materials.

MICRO STRUCTURE TESTING: CDM VS. THE COMPETITION

	CDM	A	B	C	D	E
Identification Din. Design:	20MnCr5	18MnCrB5	20NiCrMo5	20MnCr5	20MnCr5	25CrMo4
Core Hardness (BHN):	300-400	300-400	300-400	415	300-400	355
Case Hardness (BHN):	550-650	550-650	550-600	535	500-550	550-650
Effective Depth of Case:	.035	.022	.025	.010	.012	.055

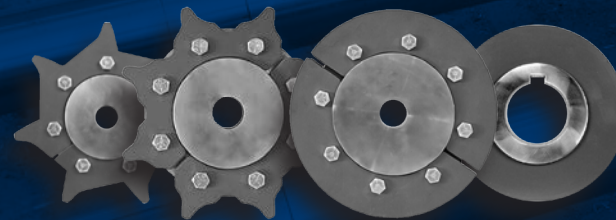
The data above shows the results of an independent lab chemical analysis of 142MM pitch chains. The analysis was performed using 5 competitors' drag chains currently selling in the industrial market that use an alloy steel.



THE RELIABILITY IS IN THE DESIGN, THE PROOF IS IN THE LONGEVITY.

The combination of a carburized, case-hardened exterior with malleable core makes the CDM design the difference between potential catastrophic failure and operating long term at full capacity. Our exclusive formula balances chemistry, micro structure and heat treating to make it extremely dependable in all types of operating environments.

CDM Systems offers a complete line of drop-forged conveyor chains, from 102mm to 260mm pitch, along with multiple connector pin configurations and flight attachments, many of them custom fabricated. CDM chains, sprockets and idlers provide the most dependable conveying media on the market and can easily retrofit or replace competitors' components.



CDM DRIVE SPROCKETS AND IDLERS

Sprocket tooth profiles and idler rims are induction-hardened to 55 Rockwell C for rugged, reliable service. Most offer easy field maintenance that does not require removal of the drive shaft, terminal, deflection shafts or bearings.

SUPERIOR SOLUTIONS

CDM IS YOUR SINGLE SOURCE FOR ALL OF YOUR MATERIAL MOVING NEEDS

MARINE LEG UNLOADERS

Customers around the world rely on CDM for safe and reliable port and river bulk unloading. Mobile or stationary designs are engineered to meet your specific needs and offer the same CDM durability.



GATES & DIVERTERS

Built to resist corrosion and abrasion, our gates and diverters change the flow of your material and direct it to different process streams. They are totally sealed and enclosed to eliminate dust, harmful emissions and material loss.



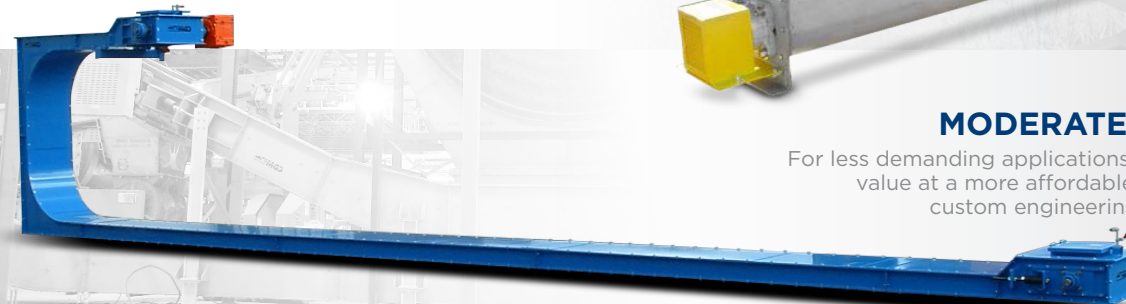
SCREW CONVEYORS

Used in almost every industry in thousands of applications, screw conveyors can handle a wide variety of bulk materials. These versatile conveyors can also be used to mix, meter or break up materials.



MODERATE DUTY CONVEYORS

For less demanding applications, this option provides excellent value at a more affordable price with no compromises in custom engineering, durability and dependability.



BUCKET ELEVATORS

These elevators are ideal for applications that require vertical conveying. Whether centrifugal or continuous discharge, elevators are capable of high volumes with high lift.



STAKE YOUR REPUTATION ON CDM CONVEYING SYSTEMS

The conveyor you buy matters. Your decision makes the difference between hitting production targets or missing output expectations, between maintaining quality product or increasing product degradation, and between improving your bottom line or adding costs and downtime beyond what was budgeted. From initial consultation and design to execution and ongoing support, you can trust CDM to solve your most demanding material handling needs.



CDM Systems, Inc.

19230 Evans St. NW Suite 202 Elk River, MN 55330
cdmsys.com - Phone: 763-428-9700 - Fax: 763-428-9701