

Typical Applications



Rendering

• Poultry Processing • Meat Processing • Fish Processing

- Chicken Feathers
- Animal Waste
- Whole Carcasses
- Fish/Animal Bones



Pulp & Paper, Gypsum Board, Particle Board

- Lime Mud
- Hogged Bark
- Oversized Wood Chips
- Shavings



Agriculture

- Fertilizer
- Sugar Beets/Cane Processing
- Corn Gluten
- Chopped Hay



Hospital Waste Processing, Recycle Plants

- Shredded Cans
- Paper
- Bottles
- Medical Disposables



Wine & Beverage Industries

- Grape Skins
- Pumice
- Stems
- Fruit Peels



Waste Water • Solid Waste Treatment

- Sludge
- Screenings
- Grit
- Solids Removal



Chemical & Heavy Industrial

- Ash
- Carbon Black
- Recycle Batteries
- Shredded Tires

Martin's New Shaftless Screw Technology

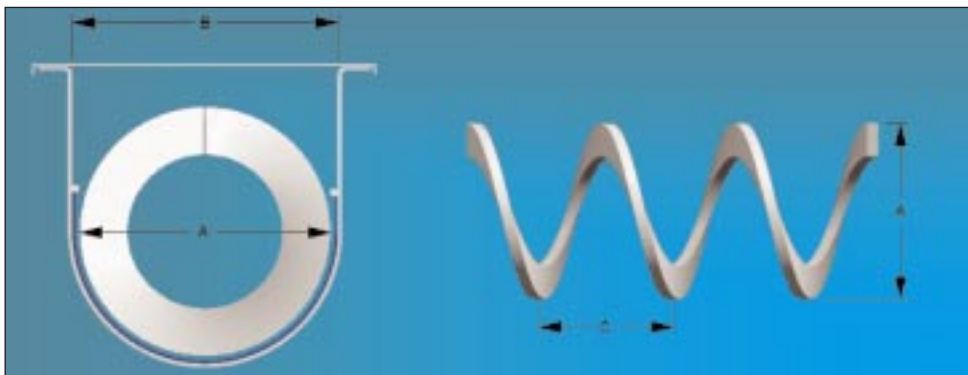
FEATURE	FUNCTION	BENEFIT
Continuous Flight	Eliminate Hangers	Reduces Maintenance Costs
3/4"-1" Flight	Long Lasting	Increases Uptime
No Tail Seals or Tail Bearings	Use Blind End Plate	Reduces Maintenance Costs
Cold Formed Flight	High Brinell	Longer Life
No Center Pipe Required	Eliminate Buildup On Pipe	Lower Maintenance/ Operation Costs
	Can Handle Particle Sizes Up To 90% Of Spiral O.D.	
	Allows Higher Trough Loading (45%-95%)	Increases Screw Capacity
Side Inlet Feeding	No Vertical Transition Necessary	Lower Installation Cost Reduces Headroom

SPECIFICATIONS

	Type of Steel	Carbon Steel • High Brinell Carbon Steel • Stainless Steel
	Capacity	Up to 17,000 CFH
	Diameter	6" to 30" (and Larger)
	Pitches	Full, 2/3, 1/2
	Trough	CEMA Standards
	Options	UHMW Liners, AR Liners, Rider Bars, Drive End Seals
	Advantages	Spanning longer distances without intermediate bearings. Transport sticky products and large lumps.

Size and Capacity

SCREW CONVEYOR



45% Trough Loading

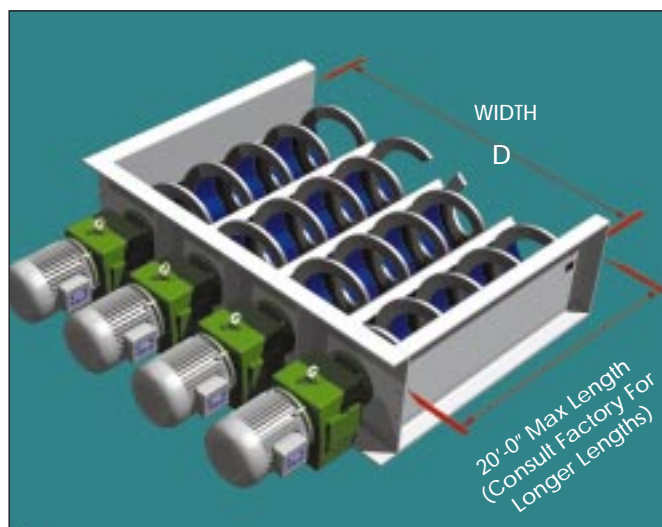
NOM. DIA.	A Dia.	B Inside	C Pitch	CFH* Full Pitch	CFH* 2/3 Pitch	CFH* 1/2 Pitch	MAX RPM
6	6	7	6	65	43	33	25
9	9	10	9	224	149	112	25
10	10	11	10	307	205	154	25
12	12	13	12	530	353	265	25
14	14	15	14	842	561	421	25
16	16	17	16	1256	837	628	25
18	18	19	18	1789	1193	895	25
20	20	21	20	2455	1637	1228	25
24	24	25	24	4240	2827	2120	25
30	30	31	30	8283	5522	4142	25

95% Trough Loading

NOM. DIA.	A Dia.	B Inside	C Pitch	CFH* Full Pitch	CFH* 2/3 Pitch	CFH* 1/2 Pitch	MAX RPM
6	6	7	6	140	93	70	25
9	9	10	9	472	315	236	25
10	10	11	10	648	432	324	25
12	12	13	12	1119	746	560	25
14	14	15	14	1777	1185	889	25
16	16	17	16	2652	1766	1326	25
18	18	19	18	3776	2517	1888	25
20	20	21	20	5180	3453	2590	25
24	24	25	24	8950	5967	4475	25
30	30	31	30	17485	11657	8743	25

*CFH = Cubic Feet per hour. -**ALL DIMENSIONS SHOWN IN INCHES.

QUAD SCREW FEEDER



95% Trough Loading

NOM DIA.	WIDTH D	CFH* Full Pitch	CFH* 2/3 Pitch	CFH* 1/2 Pitch	MAX RPM
6	28	352	235	176	15
9	40	1192	795	596	15
10	44	1636	1091	818	15
12	52	2824	1883	1412	15
14	60	4488	2992	2244	15
16	68	6700	4467	3350	15
18	76	9540	6360	4770	15
20	84	13088	8725	6544	15
24	100	22612	15075	11306	15
30	124	44160	29440	22080	15

*CFH = Cubic Feet per hour. -**ALL DIMENSIONS SHOWN IN INCHES.

Martin's Success Stories

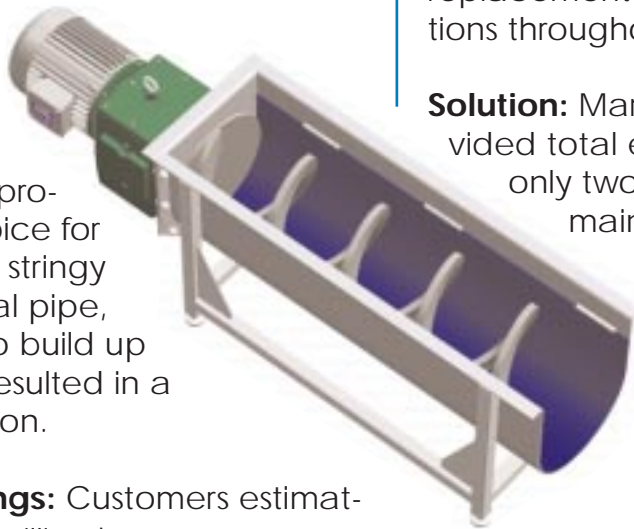
Compost

Application: 50 TPH of compost being conveyed to Drier.

Problem: Existing drag had two strands of drop forge chain. Routinely chain would break under load, shut down line, and require total cleanout of 85' long drag.

Solution: Martin's Shaftless Conveyor provided the ideal choice for conveying wet and stringy compost. No internal pipe, No hangers, and No build up on trough bottom resulted in a successful application.

Documented Savings: Customers estimated savings was 1.2 million/year.



Lime

Application: Burned lime being conveyed via Vibrating Conveyor.

Problem: Existing conveyor was noisy, difficult & expensive to maintain, expensive housekeeping (product spillage), large replacement inventory required, and vibrations throughout facility.

Solution: Martin's Shaftless Conveyor provided total enclosure, quiet operation, only two moving parts, inexpensive to maintain, and could handle the occasional oversized material.

Documented Savings: Customers estimated savings \$125,000/year.

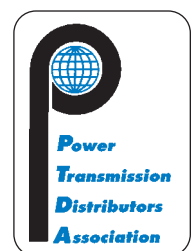


The ISO 9002 Certification is another way for *Martin* to show its commitment to be a quality manufacturer. By meeting the requirements of the ISO 9002 international standards, our customers are assured the *Martin* Conveyor Division is operating within a quality management system that allows us to:

- Promote problem prevention over problem correction.
- Determine our customers' needs and respond accordingly.
- Give all our employees the best training possible to handle orders.

It's this kind of meaningful commitment to quality that our customers expect from us, because it's the kind of commitment their customers expect from them.

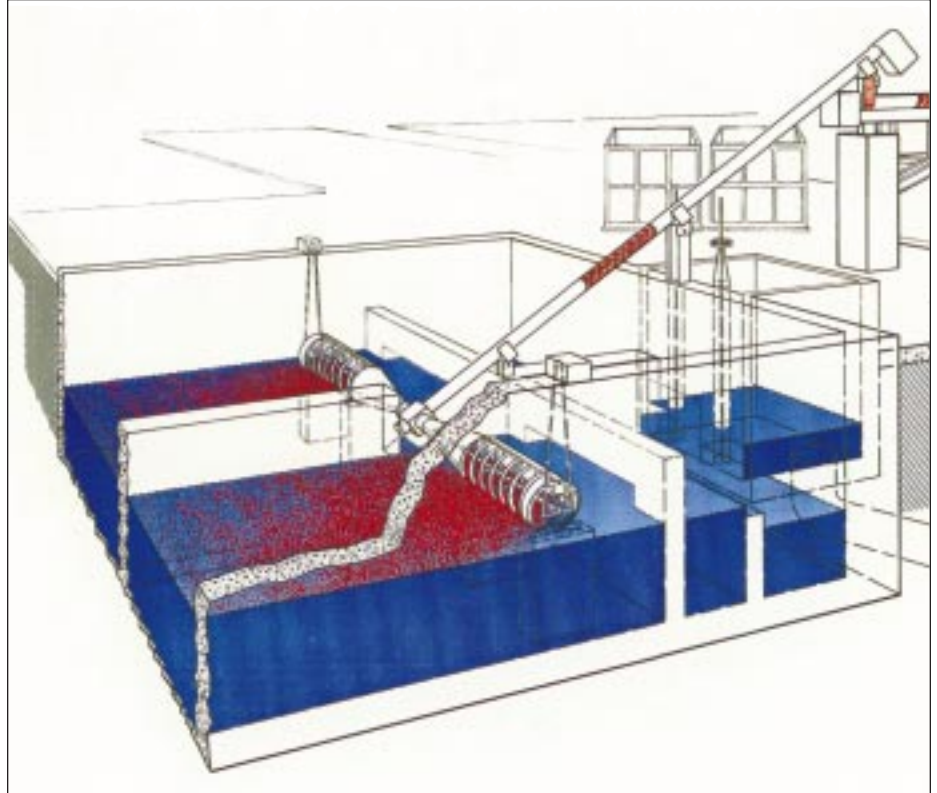
Martin CONVEYOR DIVISION
811 FOURTH AVENUE • MANSFIELD, TX 76063-0193



Martin offers a complete line of Material Handling Solutions for your conveying needs.



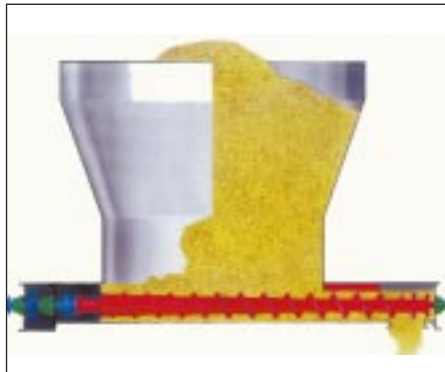
Vertical Screw Elevators



Screw Skimmers



Shaftless Screw Conveyors



Cone Screws



Food Grade Conveyors



Screw Conveyors



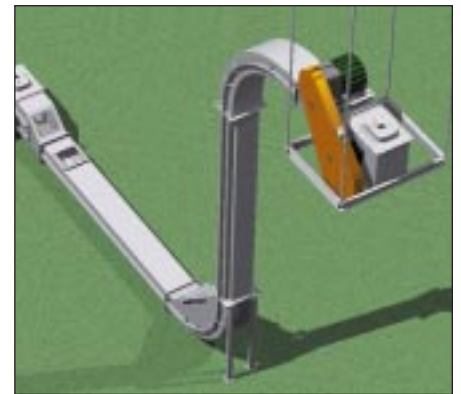
Plastic Screw Conveyors



Screw Feeders

o Reduce Downtime

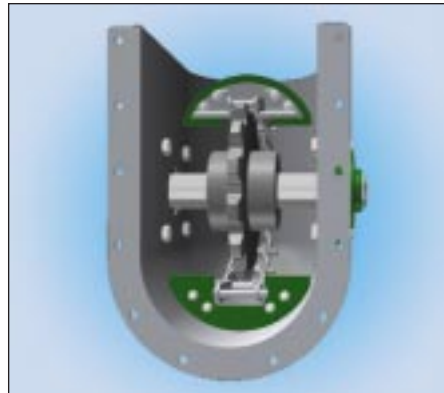
Options to reduce downtime is the key to being a value added supplier.



Special Application Drag



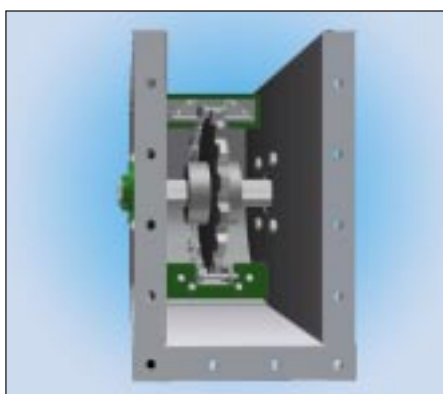
S-Path Drag Conveyor



Round Bottom Drag Conveyor



**Bucket Elevator
Head & Boot Sections**



Flat Bottom Drag Conveyor



L-Path Drag Conveyor



Complete Bucket Elevators

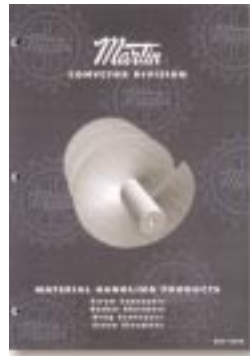
Martin Reduces down time through failure analysis techniques.

Unpredictable failures should not be tolerated. Our Philosophy is to increase uptime by designing conveyors based on application requirements. As a result, wear becomes predictable, allowing our customers to schedule downtime and replace components.

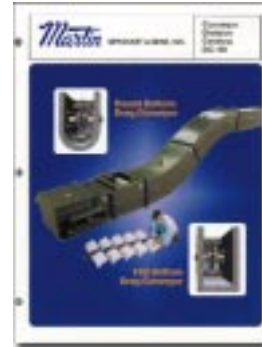
Martin offers **Failure Analysis Target Training** in several industries. Contact *Martin* to set up a training program for you.



General Catalog 2001



Conveyor Division General Catalog SC51-B



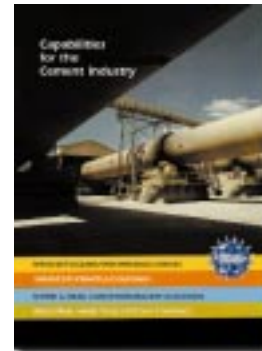
Drag Conveyor Catalog



Screw Conveyor Hanger Bearings



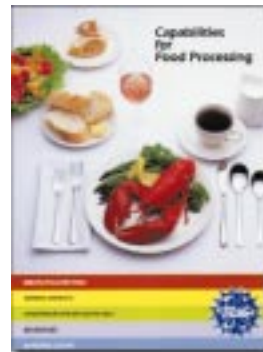
Plastic Screw Conveyor Catalog



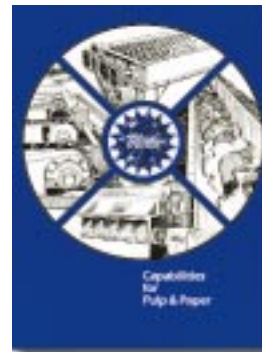
Capabilities for the Cement Industry



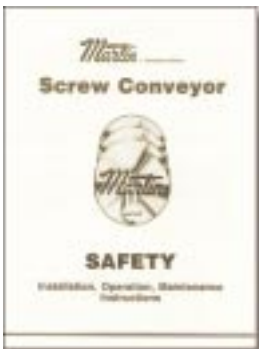
Shaftless Screw Technology SST-99



Capabilities For Food Processing



Capabilities For Pulp & Paper



Safety Installation Maintenance Manual



Safety Video



Replacement Guide for Safety Labels

Martin—Conveyor Division does not install conveyor; consequently it is the responsibility of the contractor, installer, owner and user to install, maintain and operate the conveyor, components and conveyor assemblies in such a manner as to comply with the Williams-Steiger Occupational Safety and Health Act and with all state and local laws and ordinances and the American National Standard Institute (ANSI) safety code.

In order to avoid an unsafe or hazardous condition, the assemblies or parts must be installed and operated in accordance with the following minimum provisions.

1. Conveyors shall not be operated unless all covers and/or guards for the conveyor and drive unit are in place. If the conveyor is to be opened for inspection cleaning, maintenance or observation, the electric power to the motor driving the conveyor must be LOCKED OUT in such a manner that the conveyor cannot be restarted by anyone; however remote from the area, until conveyor cover or guards and drive guards have been properly replaced.
2. If the conveyor must have an open housing as a condition of its use and application, the entire conveyor is then to be guarded by a railing or fence in accordance with ANSI standard B20.1-1993, with special attention given to section 6.12.
3. Feed openings for shovel, front loaders or other manual or mechanical equipment shall be constructed in such a way that the conveyor opening is covered by a grating. If the nature of the material is such that a grating cannot be used, then the exposed section of the conveyor is to be guarded by a railing or fence and there shall be a warning sign posted.
4. Do not attempt any maintenance or repairs of the conveyor until power has been LOCKED OUT.
5. Always operate conveyor in accordance with these instructions and those contained on the caution labels affixed to the equipment.

6. Do not place hands or feet in the conveyor.
7. Never walk on conveyor covers, grating or guards.
8. Do not use conveyor for any purpose other than that for which it was intended.
9. Do not poke or prod material into the conveyor with a bar or stick inserted through the openings.
10. Keep area around conveyor drive and control station free of debris and obstacles.
11. Always regulate the feeding of material into the unit at a uniform and continuous rate.
12. Do not attempt to clear a jammed conveyor until power has been LOCKED OUT.
13. Do not attempt field modification of conveyor or components.
14. Screw conveyors are not normally manufactured or designed to handle materials that are hazardous to personnel. These materials which are hazardous include those that are explosive, flammable, toxic or otherwise dangerous to personnel. Conveyors may be designed to handle these materials. Conveyors are not manufactured or designed to comply with local, state or federal codes for unfired pressure vessels. If hazardous materials are to be conveyed or if the conveyor is to be subjected to internal or external pressure, **Martin** —Conveyor Division should be consulted prior to any modifications.

Martin—Conveyor Division insists that disconnecting and locking out the power to the motor driving the unit provides the only real protection against injury. Secondary safety devices are available; however, the decision as to their need and the type required must be made by the owner-assembler as we have no information regarding plant wiring, plant environment, the interlocking of the screw conveyor with other equipment, extent of plant automation, etc. Other devices should not be used as a substitute for locking out the power prior to removing guards or covers. We caution that use of the sec-

ondary devices may cause employees to develop a false sense of security and fail to lock out power before removing covers or guards. This could result in a serious injury should the secondary device fail or malfunction.

There are many kinds of electrical devices for interlocking of conveyors and conveyor systems such that if one conveyor in a system or process is stopped other equipment feeding it, or following it can also be automatically stopped.

Electrical controls, machinery guards, railings, walkways, arrangement of installation, training of personnel, etc., are necessary ingredients for a safe working place. It is the responsibility of the contractor, installer, owner and user to supplement the materials and services furnished with these necessary items to make the conveyor installation comply with the law and accepted standards.

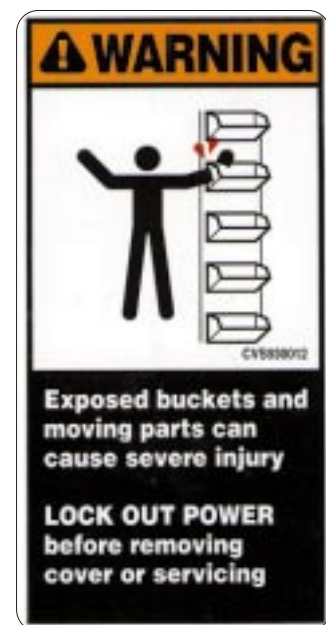
Conveyor inlet and discharge openings are designed to connect to other equipment or machinery so that the flow of material into and out of the conveyor is completely enclosed.

One or more caution signs (as illustrated below) are attached to conveyor housings, conveyor covers and screw elevator housings. Please order replacement caution labels should the labels attached to this equipment become illegible.

The label shown below has been reduced in size. For more detailed instructions and information, please request a free copy of our "Screw Conveyor Safety, Installation, Operation, Maintenance Instructions."

The Conveyor Equipment Manufacturer's Association (CEMA) has produced an audio-visual presentation entitled "Safe Operation of Screw Conveyors, Drag Conveyors, and Bucket Elevators." **Martin**—Conveyor Division encourages acquisition and use of this source of safety information.

PROMINENTLY DISPLAY IN WORK AREAS



*Brochure shows conveyors without covers for illustration purposes only.

Stock Material Handling Products

Screw Conveyor Components and Accessories



ANGLE FLANGED "U" TROUGH
MILD STEEL AND GALVANIZED



FORM FLANGED "U" TROUGH
MILD STEEL AND GALVANIZED



SCREWS
HOT DIPPED GALVANIZED



SPECIALS



TUBULAR HOUSING
MILD STEEL AND GALVANIZED



DISCHARGE GATE
FLAT RACK AND PINION



TROUGH ENDS
WITH AND WITHOUT FEET
MILD STEEL AND GALVANIZED



SECTIONAL FLIGHTS
MILD STEEL



TAIL COUPLING
AND DRIVE SHAFTS



ELEVATOR BUCKETS



TYPE E
INLETS AND DISCHARGE SPOUTS
WITH DRIVE SHAFT



SHAFT SEAL
MILD STEEL AND GALVANIZED



SPLIT GLAND



HANGER STYLE 220
HANGER STYLE 226
MILD STEEL AND
GALVANIZED



HANGER
MILD STEEL AND
GALVANIZED



STYLE 216



HANGER
STYLE 70



HANGER
STYLE 198



TROUGH END BEARINGS
BALL AND ROLLER



SHAFT SEAL
COMPRESSION TYPE
PACKING GLAND



SHAFT SEAL
WASTE PACK



SHAFT SEAL
PLATE



SHAFT SEAL
FLANGED PRODUCT
DROP-OUT



HELICOID SCREWS
RIGHT HAND AND LEFT HAND
MILD STEEL AND GALVANIZED



HELICOID FLIGHTING
RIGHT HAND AND LEFT HAND
MILD STEEL AND GALVANIZED.



HANGER BEARINGS
STYLE 220/226
Martin HARD IRON
Martin BRONZE
NYLATRON
WOOD - GATKE



HANGER BEARINGS
HARD IRON
UHMW
WOOD
GATKE



SADDLES AND FEET



SCREW CONVEYOR DRIVE
WITH ACCESSORIES



SPEED REDUCER
SHAFT MOUNTED
WITH ACCESSORIES.



FLANGED COVER
WITH ACCESSORIES

For more information about

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www.martinsprocket.com

Stock Power Transmission Products

All Steel Stock Sprockets



BORED TO SIZE HARDENED TEETH DOUBLE SINGLE HARDENED TEETH SABER TOOTH® HARDENED TEETH TRIPLE

Stock Bushings/Hubs



BUSHINGS TYPE QD STEEL WITH KEYSEAT SIZE SF-N TAPERED BUSHING QD IDLER BUSHING

Stock Gears/Steel and Cast

Spur Gears - Stocked in both 14-1/2° & 20° Pressure Angles



SPUR TYPE B SPUR 3 DP GEAR RACK BEVEL MITER WORM GEAR WORM

Stock Timing Pulleys



TIMING PULLEY TAPERED BUSHING TIMING PULLEY QD TIMING PULLEY STOCK BORE



STOCK BORE QD MTO
Martin's NEW HTS (HIGH TORQUE SPROCKETS)

Stock QD V-Belt Sheaves



"3V" HI-CAP® "5V" HI-CAP® "8V" HI-CAP

Stock Tapered Bushed V-Belt Sheaves



CONVENTIONAL C SECTION TAPER BUSHED "3V" HI-CAP® TAPER BUSHED CONVENTIONAL B SECTION TAPER BUSHED

Stock Couplings/Covers



RUBBER ELEMENT *Martin-FLEX*® STOCK BORE ROLLER CHAIN STOCK BORE JAW COUPLING COVERS
FINISHED BORE "QD" SC SPACER TPR ELEMENT

Martin's NEW QUADRA-FLEX® COUPLING

Stock Sintered Metal and Sintered Steel Products.



HANGER BEARINGS.



Extensive stockyards of screws are available for quick shipment.



A broad inventory of equipment ensures prompt worldwide delivery.



Quality material and an experienced staff means a rapid turnaround for you, our customer.

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Sales and Manufacturing

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3376 Delps Road 18038
P.O. Box 267 • Danielsville, PA 18038-0267
610-837-1841 (FAX 610-837-7337)

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3600 McCart Street (76110-4692)
P.O. Box 1038 • Ft. Worth, TX 76101-1038
817-258-3000 (FAX 817-258-3173)

Mansfield, TX

811 4th Avenue 76063
P.O. Box 193 • Mansfield, TX 76063-0193
817-473-1520 (FAX 817-473-0465)

Montpelier, OH

350 Airport Road 43543
P.O. Box 29 • Montpelier, OH 43543-0029
419-485-5515 (FAX 419-485-3565)

Sacramento, CA

1199 Vine Street 95814-0426
P.O. Box 13856 • Sacramento, CA 95853-3856
916-441-7172 (FAX 916-441-4600)

Scottdale, GA

3303 Church Street 30079-1395
P.O. Box 886 • Scottdale, GA 30079-0886
404-292-8744 (FAX 404-292-7771)

Ft. Worth, TX (Tool & Forge Division)

3600 McCart Street 76110-4692
P.O. Box 1038 • Ft. Worth, TX 76101-1038
817-258-3000 (FAX 817-258-3173)

Mini Manufacturing Centers

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357 Fortune Boulevard
Milford, MA 01757
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Charlotte, NC

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Box 19447 • Charlotte, NC 28219-0447
704-394-9111 (FAX 704-394-9122)

Chicago, IL

1505 Birchwood Avenue 60018-3001
P.O. Box 1307 • Des Plaines, IL 60017-1307
847-298-8844 (FAX 847-298-2967)

Denver, CO

10800 East 54th Avenue 80239
P.O. Box 39208 • Denver CO 80239-0208
303-371-8466 (FAX 303-371-7116)

Houston, TX

9910 Bent Oak Drive 77040
P.O. Box 41209 • Houston, TX 77241-1209
713-849-4330 (FAX 713-849-4807)

Kansas City, MO

1520 N. Commerce Avenue 64120
P.O. Box 4961 • Kansas City, MO 64120-4961
816-231-5575 (FAX 816-231-1959)

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5920 S. Triangle Drive
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P.O. Box 385727
Bloomington, MN 55438-5727
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Portland, OR 97210-0046
503-223-7261 (FAX 503-221-0203)

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813-623-1705 (FAX 813-626-8953)

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905-670-1991 (FAX 905-670-2110)

Martin Sprocket & Gear Canada Inc. (Conveyor Division)

N.W. Corner Hwy. 401 & 97, P.O. Box 1389
Cambridge, Ontario, Canada N1R 7G7
519-621-0546 (FAX 519-621-4413)

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