



Bulk Conveyor Material Handling

Glossary

July 2009

A	
Abrasion	Wearing away by rubbing, scraping.
Access door	Point of entry into an enclosed area.
Adhesion	The bonding strength between two materials.
Ageing	The exposure to an environment for a period of time.
Agglomeration	Process or act of gathering into a mass; creating larger, heavier groupings of particles.
Aggregate	Uncrushed or crushed gravel, crushed stone or rock, sand or artificially produced inorganic materials that form the major part of concrete.
Air cannon	A device that uses periodic blasts of compressed air to clear away material buildup inside pipes or transfer chutes.
Air knife	Belt cleaning system that directs a stream of air to clean the belt.
Air-supported conveyor	A conveyor that uses a conventional belt, pulleys, and drive but is supported by a thin film of air rather than conventional idlers.
Anemometer	Device to measure air velocity.
Angle of attack	The angle at which a cleaning blade is placed against the belt.
Angle of repose	The angle or slope that a conveyed material will assume when discharged onto an open pile.
ANSI	Acronym for the American National Standards Institute.
Anthracite coal	The hardest type of coal, consisting of nearly pure carbon. Mined in the Appalachian area of Pennsylvania, it has the highest heating value and lowest moisture and ash contents.
Apron feeder	A series of overlapping metal plates mounted on a rotating chain used to transport heavy, lumpy and or abrasive materials.
AR plate	Abrasion resistant steel plate commonly used for wear liners at transfer points.
Aramid	Stands for aromatic polyamide; a low elongation fiber.
Arc of contact	The circumferential portion of a pulley which is engaged by a belt.
ASTM	American Society for Testing and Materials.
B	
Backstop	A mechanical or electrical braking device used to prevent a loaded, inclined conveyor belt from rolling backwards if the motor stops.
Baghouse	A closed structure that contains a set of filter bags used to capture airborne dust.
Beater bar	A device (usually a roller device with an external bar) which strikes the back side or return side of the conveyor belt to loosen or remove carryback from the carrying side of a belt. Commonly found on bucket style belts.
Belt clamp	Beams or metal plates secured transversely on both sides of belt end(s) to hold ends in a desired position.
Belt cleaner	A device that uses one or more tensioned blades mounted on a supporting structure to remove material that clings (see carryback) to the carrying surface of a conveyor belt beyond the normal discharge point.
belt cleaner blade	The element of a belt cleaner that comes into contact the belt.
Belt conveyor	A flexible rubber endless belt strung over a framework of rollers and pulleys, that is used to transport material from a loading point to a discharge point.
Belt fastener	A device for holding two ends of a conveyor belt together.
Belt feeder	A short, flat variable speed conveyor belt used to transfer, or "feed" bulk material from one component to another. Generally seen under a large hopper or train dump station feeding a narrower, longer and faster moving receiving belt.
Belt grade	A classification of belting according to the quality and properties of the belt covers.
Belt modulus	The force per unit width of belt required to produce a stated percentage of elongation.
Belt runout	A condition where a conveyor belt moves too far to either side of its properly centered path; also see "mistracking".
Belt sag	The amount of vertical deflection of a conveyor belt from a straight line between idlers, usually expressed as a percentage of the center to center spacing of the idlers.
Belt slip	The speed differential between the belt and the pulley surface.
Belt stretch	The increase in belt length that takes place when tension is applied.
Belt support cradles	A method of belt support with rolling components. Generally found in the load zone for impact or great sealing.
Belt tracking	The actions a person takes to get the belt to track properly.

Belt tracking switch	A limit switch actuated by the edge of the conveyor belt when the belt moves abnormally to either side of its centered path.
Belt training	The actions a person takes to get the belt to track properly.
Belt training idler	An idler having a belt-actuated swivel mechanism to automatically control side drifting of a conveyor belt.
Belt turnover	A system of idlers to turn a belt over.
Bending modulus	The force required to induce bending around a specified radius and, hence, a measure of stiffness.
Bend pulley	A pulley used to change the direction of a belt.
Bias cut	A cut of a textile material or belt ends made diagonally at an angle less than 90 degrees - usually 20° - 45° - to the longitudinal axis.
Binder warp yarn	One of the warp systems in a straight warp fabric interlaced with the filling yarn to provide the strength to hold mechanical fasteners.
Bituminous coal	Soft, intermediate grade of coal that is most common and widely used in the US. It is mined chiefly in Appalachia and the Midwest.
Bleeding	Migration to the surface of plasticizer, waxes or similar materials to form a film or beads. See also Bloom.
Blemish	A mark, deformity, or damage which impairs the appearance.
Blister	A raised spot on the surface or a separation between layers usually forming a void or air-filled space in the vulcanized conveyor belt.
Booster drive	Used in some long conveyors to reduce the power/tension at the drive pulley.
Bottom cover	The non-carrying belt side towards the pulleys.
Bow	A concave curve of the belt.
Breaker	An extra ply for shock absorption to minimize gouging.
Brush cleaner	A belt-cleaner device that uses a rotating brush to clean carryback material from the return run of a conveyor belt.
BTU	British thermal unit. This is a measure of energy required to raise the temperature of a pound of water one degree Fahrenheit. On average, coal contains about 22 million BTU per ton.
Bucket elevator belt	A transversely rigid belt with buckets attached, for vertical conveying.
C	
CAD	Computer Aided Design
Calender	A machine equipped with three or more heavy drums revolving in opposite directions used for adhering rubber covers on fabrics.
Camber	A convex curve of the belt.
Capacity	The material load on the belt, given in tons per hour (tph).
Carcass	The fabric, cord and/or metal reinforcing section of a belt, as distinguished from the rubber cover.
Carryback	Conveyed material that clings to the surface of a belt past the nominal discharge point. If not removed by a belt-cleaning system, these particles become dislodged along the return run and pile up on the return side conveyor components and anything directly beneath the belt.
Carrying side	The side of the conveyor belting that would come into normal contact with the bulk material.
Catenary idler	A type of flexible belt-carrying idler with ends supported in pivoted stands. The tube or rollers sag under the weight of the load to form trough.
CEMA	Conveyor Equipment Manufacturers Association
Center-to-center	The distance between the center of two pulleys or idlers. Sometimes also called centers or center distance or conveyor length.
CFM	"Cubic feet-per-minute" in air-flow calculations.
Chatter	The rapid vibration of a belt cleaner that is not aligned properly with a conveyor belt.
Chevron, chevron belt	A v-shape or similar ridge pattern on the carrying side of the belt to keep material from rolling down and incline.
Chute, chutework	An enclosure that is used to contain material as it is transferred from one piece of equipment to another.
Chutewall	The walls of the loading chute and sometimes the transfer point skirtboard.
Classifier	A piece of equipment used to sort and separate material by size.
Cleaner	A device for removing adherent material from the belt.
Cleat, cleated belt	Transverse raised sections on a conveyor belt to stabilize material carried up an incline.

Coefficient of friction	The ratio of the force required to slide two surfaces to the force pressing them together; equal to the tangent of the interface friction angle.
Coke	The solid product from the distillation of coal in an oven. A hard, dry carbon substance produced by heating coal to a very high temperature in the absence of air. Coke is used in the manufacturing of iron and steel.
Cold splice	A type of belt splice in which layers of a conveyor belt are overlapped and bonded together using an adhesive compound.
Concave	Curved inward; bow is a concave curve in the belt.
Confined space	A potentially hazardous enclosed area; access is usually controlled by safety regulations.
Consolidated bulk density	The density of a body of a bulk material after it has been subjected to a compressive force or vibratory energy, sometimes called a vibrated bulk density.
Convex	Curved outward; camber is a convex to the belt.
Conveyor	A piece of equipment designed to carry material from one point to another along a predetermined path.
Conveyor belt	A length of flexible rubber that is stretched over a framework of rollers and pulleys and then made into a single piece by splicing it tow ends together.
Cord fabric	The fabric elongation is adjusted by means of the weft yarn twist.
Compression set	The deformation in a material remaining after it has been subjected to and released from a compressive force.
Concentrate	The result of separating ore or metal from its containing rock or earth.
Continuous miner	A mining machine designed to remove coal from the face and load it onto cars or conveyors without the use of cutting machines, drills or explosives.
Counterweight	The weight applied to the take-up assembly to maintain proper belt tension.
Cover	The outer rubber (or PVC) components of a belt.
Cracking	A sharp break or fissure in the surface. See also "Wrinkle".
Creep	The action of a belt alternately losing speed on the driving pulley and gaining speed on the driven pulley.
Creeper drive	An auxiliary motor and gearbox that is designed to operate a piece of equipment at a very slow speed.
Crimp	The waviness of the yarn in a woven fabric or the difference in distance between two points on a yarn as it lies in a fabric and the same two points when the yarn has been removed and straightened. Expressed as a percentage of the distance between the two points as the yarn lies in the fabric.
Crown	The difference between the diameter of a pulley at its center and at its rims.
Crowned pulley	A pulley with a greater diameter at the center, or other points, than at the edges.
Crusher	A piece of equipment used to crush or shatter larger pieces of material into smaller ones.
Cupping	The action of the edges of the belt curving upward on the carrying side and downward on the return run. Also referred to as belt "curl".
Cut edge	The uncovered edge of a belt, created by cutting after vulcanization.
Cyclone	A high-velocity "whirlwind" type of device that uses centrifugal force to separate dust particles from the air.
D	
dBA	Decibel A scale, a measurement of sound.
Deck, decking, deck plate	A barrier plate located between conveyor stringers to prevent material from spilling off the carrying run onto the return run. Also referred to as "belt pans".
Deflector wear liner	A liner installed inside the skirtboard that incorporates a bend toward the center of the belt, which channels material away from the belt edge and sealing system.
Degradation	A deleterious change in the chemical structure of a material.
Delamination	The separation of layers of material.
DEM	Discrete Element Modeling. A computer based technique to analyze and demonstrate the movement of individual particles in or through a structure.
Denier	A yarn sizing system for continuous filament synthetic fibers on the basis of the weight in grams of 9000 meters of the yarn.
Density	The ratio of the mass of a body to its volume or the mass per unit volume of the substance.
Deposit	A natural occurrence or accumulation of mineral material, coal, iron ore or gas.
Diagonal Plow	A device place at an angle across the surface of a conveyor belt to deflect material off to one side.

DIN	Acronym for the Deutsches Institut für Normung, the German institute for standardization. Used commonly for abrasion testing of materials.
Dipped fabric	Coated with rubber compound by passing through a rubber solution and drying.
Discharge	The point where material exits from a conveyor or other component in a material handling system.
Disk idler	An idler that uses a series of cushioned disks to support a conveyor belt.
Displaced air	The air that is pushed out of the chute when the chute is loaded, equal to the volume of materials placed into the chute.
Diversion plow	A retractable plow that can be lowered to the carrying surface of a belt to divert material off of a conveyor ahead of the normal discharge point.
Downstream	In the direction of the places that the belt has not yet reached, or toward the discharge of the conveyor or system.
Drag conveyor	Material handling system using bars or plates on a chain to pull the cargo to the discharge stream.
Dragline	A large excavating machine used in the surface mining process to remove overburden.
Dribble chute	An angled chute positioned under the head end of a conveyor belt to catch any material that may fall off the return side and drop it into the discharge stream.
Drive	an arrangement of electrical and mechanical components that provide motive power to a conveyor or other piece of equipment.
Drive pulley	The pulley connected to the drive mechanism of a conveyor belt.
Drum pulley	A pulley that is of uniform diameter from side to side.
Durometer	A device that measures the hardness of a flexible material (such as an Eastover), accomplished by measuring the resistance to the penetration of an indenter point.
Dust collection system	A mechanical system used to remove dust from the air in a material handling system.
Dust curtains	Segmented rubber or similar curtains suspended inside and enclosed duct that are used to slow airflow and allow airborne dust to settle back into the material stream on a conveyor belt before it exists its load zone.
Dust -suppression systems	A dust-control system using water or enhanced water to reduce the escape of airborne particulars.
Dutchman, saddle	A short section of belting mechanically spliced into a length of belting and removed when the take-up allowance is exceeded.
Dynamometer	An apparatus capable of inducing various loads for evaluation of dynamic belting properties.
E	
Edge damage	Tears and rips along the edge of a conveyor belt.
Elastomer	A polymer having elastic properties resembling natural rubber.
Electrical conductivity	A measure of how well a material accommodates the transport of electric charge, measured in Ohm.
Elongation	The total belt elongation consists of an elastic (which recovers) and a plastic (which remains) portion.
Endless length	The length of a closed belt (without splice allowances).
Entrapment damage	A groove worn into the surface of the belt by material trapped between the moving belt and a fixed component.
Entrapment points	A point where the two surfaces will allow a material lump to become wedged.
EPA	Environmental Protection Agency, a branch of the US government
Exit point	The area of a load zone where the skirtboards come to an end and the main carrying run of the conveyor begins.
Extrusion	A process whereby rubber is forced through a shaping orifice.
F	
Fatigue	The weakening of a material occurring when repeated application of stress causes permanent strain.
FEA	Finite Element Analysis, is a computerized numerical analysis technique used for solving differential equations to primarily solve mechanical engineering problems relating to stress analysis, used in bulk-material handling in the design of conveyors and transfers.
Feed rate	The amount of material flow that is being transferred on a conveyor at any given time, usually expressed in "tons per hour" (TPH).
Feeder	A device that regulates the flow of material from a bin or storage hopper to a conveyor or other piece of equipment.

Feeder belt	A belt that discharges material onto another conveyor belt.
Filament	A continuous fiber of very high length.
Fines	Small particle of material.
Finger splice	A joint of the belt where the two ends are cut into a number of narrow triangular "fingers" which are interlaced and vulcanized together.
Fire or flame resistance	Retards the burning action of fire or flame. Achieved by adding fire retardants to the compound.
Flat idler	An idler where the supported belt is flat.
Flop gate	A pivoted metal plate that can be moved or "flopped" to feed material to either of two different discharge points.
Flotation	Separating ore from waste materials by floating away the materials of lower specific gravity, while the heavier materials sink.
Fly ash	The finely divided particles of ash entrained in gases resulting from the combustion of fuel. At coal-fired power plants, fly ash is captured by special equipment, usually either electrostatic precipitators or baghouses.
Fossil fuel	Fuel such as coal, crude oil or natural gas, formed from the fossil remains of organic materials.
Free-belt edge distance	The non-load carrying portion of the belt's width, toward the belt edges, typically where the skirtboard-sealing system is applied.
Friction	The resistance to motion due to the contact of surfaces.
Fugitive material	Any stray material that escapes from a material handling system at a place other than its normal discharge point, might originate as carryback, spillage, or airborne dust or from other areas.
G	
Gasification	Any of various processes by which coal is turned into low, medium or high BTU gas.
Gauge	The thickness of a belt or its individual elements.
Gouging	The effect of sharp heavy material falling onto a conveyor belt cover to loosen or tear out pieces of the cover.
Gravity take-up	A mechanical system that adjusts for the stretch or shrinking of a conveyor belt automatically by a weighted pulley in the system.
Grizzly	A series of metal bars or grids that are spaced apart to allow small lumps and fines to fall directly through while passing large lumps on to crushing equipment.
Guards, guarding	Barriers to prevent the entry of personnel into potentially hazardous areas or equipment.
Guide roller	A small outrigger roll on a self-aligning idler. When a conveyor belt mistracks into the guide roll, it causes the pivoted steering rolls to turn inward and force the belt back onto centerline.
Gusset	A triangular insert for enlarging or supporting.
H	
Hammermill	A type of crusher using multiple rotating hammers mounted on a central shaft to break hard, lumpy materials such as coal or limestone into smaller sizes.
Hardness	Degree of resistance to indentation.
Head	The discharge end of a conveyor belt.
Head pulley	The pulley at the discharge end of the conveyor.
Highwall	Unexcavated face of exposed overburden and coal in a surface mine or in a face or bank on the uphill side of a contour mine excavation.
Hold-down roller	An idler used to keep a conveyor belt from raising up, as when traveling unloaded, or used to apply downward pressure on the return run of a conveyor belt to maintain cleaning efficiency by preventing cleaning pressure for changing the belts line of travel. Also referred to as a "pressure roller".
Hood	A curved deflector installed at the discharge of a conveyor to direct and confine the moving material stream so it flows smoothly and with minimal induced air.
Hygroscopic	Able to absorb moisture from the air.
Hysteresis loss	A loss of mechanical energy due to successive deformation and relaxation, measured by the area between the deformation and relaxation stress-strain curves. See also "Elongation".
I	
Idler	A nonpowered roller supporting the belt.

Idler-junction failure	A longitudinal splitting or cracking in a belt caused by insufficient transition distance between the trail pulley and the load zone for the type of belting being used and/or an idler junction gap of more than 0.4 inches (10mm) or twice the belt thickness.
Impact	A strike of a body of material dropping on the belt.
Impact bed	A series of cushioned bars used to absorb loading forces under a conveyor belt load zone.
Impact idler	A belt idler having a resilient roll covering, resilient molded Eastover rings, springs or other means of absorbing impact energy at the place where material falls onto the belt.
Impact resistance	The relative ability of a conveyor belt assembly to absorb impact loading without damage to the belt. See also "transverse reinforcement".
Induced air	Air pulled into the voids created as the material stream expands as it leaves the head pulley.
Intermediate idlers	Idlers placed between impact beds or slider beds to support a conveyor belt when material is not being loaded.
J	
Joint	The connection of two belt ends.
Junction-joint damage/failure	A longitudinal splitting or cracking in a belt caused by insufficient transition distance between the trail pulley and the load zone for the type of belting being used and/or an idler junction gap of more than 0.4 inches (10mm) or twice the belt thickness
K	
Kevlar	A trademark for para-aramide (aromatic polyamide).
Kicker plate	Deflector to steer the flow of material after it leaves the first point of contact with the transfer chute.
Knocking (idlers)	The process of manually adjusting the cross-structure angle of conveyor belt idlers to train a belt to centerline, accomplished by moving one end of the idler slightly forward or back.
L	
Lagging	A smooth or embossed rubber, ceramic or urethane covering on a pulley to increase friction or wear between belt and pulley.
Lateral misalignment	The offset of pulleys, idlers, or structure from a designated longitudinal reference line.
Leaching	The action of percolating liquid to remove the soluble parts. Cyanide leach of gold, for instance, is a process where a weak cyanide solutions is percolated through low-grade ore heaped on an impermeable liner. Gold is then extracted from the liquid in a closed-loop system.
Leakage	Material that has escaped from the material handling system, spilling from the sides or falling or expelled from openings
Lift	The vertical distance bulk material is moved on a conveyor; the change in height from one end of the conveyor to the other end.
Lignite coal	A brownish-black coal with generally high moisture and ash content and lowest carbon content. Significant resources and mining operations are in Texas, North Dakota and Montana.
Limit switch	An electrical switch designed to shut-off the material flow from a conveyor when material backs up at the discharge point forcing the switch to move into a tilted position.
Linear tensioner	A type of tensioner that applies direct upward pressure to a belt cleaner.
Liner	Material placed on the inside surfaces of an enclosure or vessel, usually to preserve the enclosure by reducing wear.
Liquefaction	The process of converting coal into a synthetic liquid fuel, similar in nature to crude oil and/or refined products, such as gasoline.
Load out	Area at the discharge of a conveyor where material can be temporarily stored or loaded directly onto a device for transport to another destination.
Load zone	The receiving point where material is dropped or fed onto a conveyor.
Loading chute	The enclosure that place the material onto the receiving conveyor.
Lockout	A safety precaution of placing a padlock or other control on stored energy sources, the power supply, or control circuit of a machine to prevent its premature resumption of operation or unexpected released energy.
Longitudinal	In reference to a conveyor belt, a lengthwise direction that runs parallel with the centerline.

Longwall miner	A deep mining machine that uses a steel plow or rotating drum that is pulled mechanically back-and-forth across a long face of coal. The loosened coal falls onto a conveyor for removal from the mine. Longwall mining is highly productive and accounts for about 50 percent of the total US underground coal production.
Loose bulk density	The weight per unit of volume of a bulk solid, measured when a sample is in a loose or non-compacted condition.
LRR	Low rolling resistance.
M	
Magnetic pulley	A pulley equipped with a permanent or electromagnet, used to remove tramp iron from the material cargo carried on or discharged from the conveyor.
Magnetic separator	A device that uses magnetic attraction to pull metal scraps, known as "tramp iron" out of the material stream on a conveyor.
Man car	A vehicle used to transport miners to the working sections of a deep mine.
Maximum tension	The highest tension occurring in any portion of the belt under operating conditions.
Mechanical fastener	Any mechanical device used to join the ends of belting. Illustration
Mechanical splice	A type of splice in which mechanical fasteners are used to connect the two ends of a belt.
Metallurgical coal	Various grades of coal suitable for carbonization to make coke for steel manufacturing.
Methane	A potentially explosive gas formed naturally from the decay of vegetative matter, similar to that which formed coal. The principal component of natural gas, methane is frequently encountered in underground coal mining operations and is kept within safe limits through the use of extensive mine ventilation systems.
Minerals	Scientifically, a naturally formed inorganic solid with a limited range in chemical composition and with an orderly internal atomic arrangement that determines crystalline structure and physical properties.
Miners	Some 320,000 miners work in the US in metal, non-metal, coal and stone and gravel mines.
Minimum pulley diameter	The minimum pulley size (usually to prevent damage) for a particular belt as specified by the belting manufacturer.
Misalignment switch	A limit switch mounted along the edge of a conveyor belt that will shut the drive motor down if the belt tracks too far to either side of its normal centered path.
Mistracking	The off-center travel of a conveyor belt.
Modulus of elasticity	The force divided by the percent elongation to cause the elongation.
Molded edge	A solid rubber belt edge formed in a mold.
Mooning	Uneven wear on a pre-cleaner blade that results from the blade being wider than the material path.
MSHA	Mine Safety and Health Administration, a unit of the US Department of Labor.
N	
Negative rake	Cleaning blades inclined at an angle in the direction of belt travel.
Nylon	See "polyamide".
O	
Offset idlers	A troughing idler set where the wing rollers are in a vertical plane different from but parallel to, the center roller.
Oil resistant	Able to withstand any deterioration of physical properties arising from interaction with petroleum.
Open pit	A mine or excavation open to the surface. Refers primarily to mines of metal ores; distinguished from coal surface mines.
Ore/ore body	A source of minerals that can be mined at a profit. Ore refers to either metallic or non-metallic deposits. Ore body is a solid and fairly continuous mass of ore that is individualized by form or character from adjoining country rock.
Operating tension	The tension of a belt while running with a material load.
OSHA	Occupational Safety & Health Administration, in the US an agency of the US department of Labor.
Overburden	Layers of earth and rock covering a coal seam or mineral deposit.
Overend discharge	A discharge over the head of the conveyor.
Ozone cracking	Cracks caused by exposure to an atmosphere containing ozone.
P	
Peeling angle	When a cleaner blade is tilted in opposition to the direction of belt travel; also known as positive rake angle.

Pelletizer	A device to form pellets (small lumps) from fines or dust.
Permeability	Usually the quality or condition of allowing passage of air through a steel cord to identify the degree of rubberization.
Picking idlers, feeder	A type of troughing idler set with narrow wing rolls and a wide center roll. Idlers of this type are generally used for material that must be picked or sorted as it is conveyed. Also widely used on conveyor belt feeders.
Pillow block	A journal bearing enclosed in a bolt-on housing that is used to mount pulleys to a conveyor stringer.
Pinch point	A point where a machine element moving inline meets a rotating element in such a manner it is possible to nip, or entrap, a person or object between the members.
Plastisol	A suspension of a finely divided polymer (PVC) in a plasticizer.
Plow	A device stationed across the path of a conveyor to discharge or deflect material.
Plug welding	A type of joint made by welding one part to another through a circular hole.
Pluggage	The blocking of the discharge of a chute or hopper
Ply	A layer of fabric in a belt.
Ply separation	Lack of adhesion between plies.
Polyamide	High-elongation fiber, normally used for the belt's weft for good troughability. As warp recommended only for specific applications because of its plastic elongation behavior.
Polyester	Low-elongation fiber, normally used as belt warp.
Portal	Any entrance to a mine.
PPE's	Personal protective equipment. Equipment and attire such as hard hat, safety glasses, hearing protection, respirators and steel-toe shoes.
Preparation Plant	A facility, usually located on a mine site, that crushes, sizes and washes coal prior to shipment.
Pre-cleaner	A belt cleaner installed on the face of a head pulley to shear off the bulk of any carryback clinging to the belt; primary cleaner.
Press	A machine consisting of two or more hydraulic, heated plates used for conveyor belt vulcanization.
Press marks	Irregularities in the surface of a vulcanized belt caused by the press ends or corresponding irregularities in the press surface.
Primary, primary cleaner	A pre-cleaner; that is, a belt cleaner installed on the face of a head pulley below the material trajectory to shear off the bulk of any carryback material clinging to the belt. The primary cleaning position is on the face of the head pulley below the trajectory.
Primary position	The area around the discharge pulley where primary belt cleaners are generally installed.
Pug mill	Industrial processing machine in which material is simultaneously ground and mixed with liquid.
Pull-cord switch	A cable running along the length of a conveyor, connected to one or more switches. In an emergency, a manual pull of the cable at any point will shut down the conveyor system.
Pulley	A rotating cylinder mounted on a central shaft that is used to drive, change direction of, or maintain tension on a conveyor belt.
Pulley wrap	The total area of contact where a belt wraps in an arc around the surface of a pulley.
Pulverizer	A mechanical device used to grind material down to a fine powder consistency. A ball mill uses heavy steel balls that roll between counter rotating faces to crush the material.
PVC	Polyvinyl chloride. A material used in the construction of some conveyor belting.
Q	
R	
Radial tensioner	A tensioner that transmits torque through a pivoted extension or torsion spring to a belt cleaner.
Rated tension	The minimum breaking strength of a belt, also referred as the working tension.
Rating	The minimum belt breaking strength (PIW) of a belt in Pounds per Inch of belt width.
Reclaim system	A material handling system used to recover and transport material from a stockpile area to a point where it will be processed or consumed.
Reclamation	The restoration of land and environmental values to a mining site.
Regenerative conveyor	A conveyor for which the head is at a substantially lower altitude than the tail (downhill conveying), generating power.
Return idler	An idler used to support the empty, return side of the conveyor belt.

Return side, return run	The side of the conveyor belt that does not carry material, after the discharge, as the belt returns to the loading zone.
Reversing conveyor	A type of conveyor that can carry material in either direction.
RMA	Rubber Manufacturers Association.
Rock box	A ledge or shelf made inside a transfer chute where material is to accumulate. This allows subsequent material to impact on the accumulated material rather than against the chute wall.
Rock dusting	The process of coating tunnels in underground mines with powdered limestone to dilute potentially unhealthy or dangerous concentrations of coal dust and to help minimize explosion hazards.
Roll crusher	A mechanical device that uses a heavy, rotating metal drum equipped with teeth or cogs inside a screened enclosure to crush hard materials.
Rollback	Stray pieces of material that roll and bounce backward down an inclined belt after material flow has been shut off.
Rolling components	The idlers and pulleys (and other rotating components of a conveyor system).
Rolling resistance	Also called indentation rolling resistance. The resistance by deformation that occurs when the conveyor belt moves over an idler. The energy of deformation is greater than the energy of recovery. The hysteresis energy loss is depending on the viscoelastic properties of the belt.
Roof bolting	A method of supporting the ceilings of underground mines by inserting long steel bolts into hole bored into the strata forming the roof.
Rotary press	A vulcanizing machine consisting of a rotating, heated drum with a flexible steel band partially encircling the drum, which continuously advances a material while under pressure and heat between drum and band.
Rubber cement	A mixture of polymeric compound or elastomer used as an adhesive or sealant.
S	
Saddle, dutchman	A short section of belting mechanically spliced into a length of belting and removed when the take-up allowance is exceeded.
Safety cable	A restraint used as a safety measure to prevent the fall of an overhead device in the event of the failure of its mounting system.
Safety factor	A multiplier applied to the calculated maximum force to which a conveyor belt splice (as the weakest link in a conveyor belt) will be subjected. A factor of safety accounts for imperfections in materials, flaws in assembly, material degradation, and uncertainty in load estimates.
Sag	The amount of vertical deflection of a conveyor belt from a straight line between idlers, usually expressed as a percentage of the center to center spacing of the idlers.
Sampler	A mechanical device used to collect small amounts of material at preset intervals from the main material stream for testing or quality-control purposes.
Scraping angle	A belt cleaner installed so its blade(s) are tilted in the direction of belt travel.
Screw conveyor	A type of conveyor that uses a rotating auger inside an enclosed tube to convey material from one point to another.
Screw take-up	A take-up for a conveyor system in which movement of a pulley-bearing block is accomplished by means of a screw.
Scrubber	Any of several forms of chemical/physical devices that remove sulfur compounds formed during coal combustion. Technically known as flue gas desulphurization systems, they combine the sulfur in gaseous emission with another chemical medium to form an inert sludge.
Seal	Method to prevent spillage by containing the fines and dust at the edge of the skirtboard.
Sealing system	Elastomer seal and clamping system at the edge of the skirtboard to contain dust and fines and prevent spillage.
Secondary belt cleaner, secondary cleaner	A belt cleaner mounted beneath the return side of a conveyor belt to remove any remaining carryback fines that were not removed by the pre-cleaner.
Secondary position	Position for a belt cleaner, between the point where the belt leaves the head pulley and where it contacts the first snub or bend pulley or return idler.
Self-extinguishing	If set under fire the belt will generate gases that extinguish the fire. Test procedures require that a minimum undamaged length remains after the belt has been set on fire.
Self-aligning idler	An idler having a belt-actuated swivel mechanism to automatically control side drifting of a conveyor belt.

Shaft	A narrow, deep excavation used for finding iron ore or coal. The term is often applied to vertical shafts, as distinguished from a decline or incline shaft.
Shelf storage life	The period of time prior to use during which a product retains its intended performance capability. Important for (uncured) splicing material.
Shuttle conveyor	A belt conveyor having overend discharge, the whole being mounted on a traveling carriage capable of being shuttled backwards and forwards.
Side-loading forces	Pressure resulting from the energy and weight of material pushing outward from the center.
Side-support cradles	Belt support system using slider bars under the skirtboard, to provide a consistent and sealable surface for the sides of the belt.
Skim coat	A thin layer of rubber between layers of fabric.
Skirtboard	In a conveyor system, the vertical or inclined plates located longitudinally and closely above the belt to confine the conveyed material.
Skiver	Grinding equipment to bevel belt ends for an overlap splice. There are sanding belt, drum and disk skivers in use.
Slab belting	Belting made in wide widths and long lengths for later slitting into narrower widths and cutting into shorter lengths.
Slack-side tension	The area of least tension on a conveyor belt; the low-tension areas will vary on the location of the snub and take-up pulleys; they are completely dependent on the individual conveyor and must be identified for each application.
Slider bar	A low-friction bar, typically used in the construction of a slider belt-support cradle.
Slider bed	A series of longitudinal bars assembled in a cradle and placed beneath a conveyor load zone to provide a continuous surface for a loaded belt to ride on.
Slip, slippage	The speed differential between the belt and the pulley surface.
Slope belt	A conveyor belt used to carry material along an inclined flight. Sometimes called drift conveyor.
Smelter	A furnace in which the raw materials are melted, and metals are separated from impurities.
Snub pulley	A non-driven pulley located close to the drive pulley to provide a greater arc of contact around the drive pulley.
Solid woven	A single ply ("monoply") interwoven fabric.
Slack-side tension	The area of least tension on a conveyor belt; the low-tension areas will vary on the location of the snub and take-up pulleys; they are completely dependent on the individual conveyor and must be identified for each application.
Slider bar	A low-friction bar, typically used in the construction of a slider belt-support cradle.
Slip, slippage	The speed differential between the belt and the pulley surface.
Spillage	Lost material that has fallen from the side(s) of the conveyor belt; typically in the load zone, but can occur at any point along the conveyor; a general term for all fugitive material.
Spiral-wrapped pulley	A wing pulley that is wrapped with a steel band in a spiral pattern to reduce belt vibration while still maintaining the self-cleaning function of the pulley.
Splice	The joint where two ends or two pieces of belting are joined together to provide a continuous loop.
Splice allowance	Additional length required to make a splice.
Splicer	A field splicing technician.
Spoon	A curved trough at the bottom of a transfer chute that directs the placement of the stream of material onto the receiving belt conveyor.
Squeegee blade, dry wipe	A soft urethane or rubber blade that wipes the belt to remove water from the belt.
Stacker conveyor	A conveyor used to "stack" or drop material onto a stockpile or lowering well. A stacker conveyor can be "fixed" to drop material into single location, or "rotating" to spread the material in a sweeping motion over a wider area.
Stacker / reclaimer	A boom mounted conveyor equipped with a rotating bucket wheel that can "stack" or drop material onto a stockpile for storage or reverse direction
Stackout system	A series of conveyors designed to carry material to storage area.
Stepped splice	A type of splice in multi-ply belting where the fabric plies on one end of the belt are removed so that it will butt together and overlap adjacent plies of fabric on the other end.
Straight face pulley	A pulley with a flat surface with no crown.
Stringer	The longitudinal supporting structure of a conveyor frame, between the terminal pulleys.

Straight warp	Made of high tenancy polyester fibers for the warp and weft polyamide yarns, both held together by a polyamide composite yarn.
Subbituminous coal	Coal with higher heating value than lignite. Wyoming produces the bulk of subbituminous coal in the Powder River Basin (PRB) area.
Surcharge angle	The angle to the horizontal which the surface of a body of material assumes while the material is at rest on a moving conveyor belt. This angle is usually 5-15 degrees less than the angle of repose, though in some materials it may be as much as 20 degrees.
Surfactant	A surface-acting agent. In dust suppression, this is an additive that is combined with water in a paray or fog to assist in the capture of airborne dust.
T	
Tagout	The placing of a name tag or other label or sign on a disabled power or control system, to identify that the system is "down" for maintenance and should not be restarted.
Tailings	The waste material left over after hardrock mining and milling processes have been completed.
Tail pulley	The pulley near the loading end of the conveyor system.
Take-up	A device used to remove slack from a conveyor belt and maintain tension.
Take-up pulley	A pulley which can move in space in order to maintain relatively constant tension.
Take-up travel	The distance the take-up is able to move while the belt is running.
Tensile member	The fabric, cord and/or metal reinforcing section of a belt, as distinguished from the rubber cover.
Tension	Stress on the belt tending to cause extension.
Terminal pulley	The pulley at either end of the conveyor; the head and / or tail pulleys.
Throughput	The amount of bulk material delivered by a material handling system; usually stated as tons per hour (TPH)
Tie gum	A thin sheet of unvulcanized rubber inserted between plies in vulcanized repairs of splices.
Tight side tension, T1	The area of highest tension on a conveyor belt, usually located at the point where the conveyor belt approaches the drive pulley.
Tilt switch	An electrical switch designed to shut-off the material flow from a conveyor when material backs up at the discharge point forcing the switch to move into a tilted position.
Tipple	A surface processing structure for cleaning and sizing coal and automatically loading it onto rail cars or trucks for shipment.
Top cover	The carrying surface of a conveyor belt.
TPH	Tons per hour
Tracking, tracking device	A device used to steer a mistracking conveyor belt back to centerline.
Training idler	An idler mounted on a mechanical device, actuated by the belt moving against it to make the belt run straight.
Trajectory	the arcing path made by conveyed material as it is discharged from the head end of the conveyor.
Tramp iron	Pieces of scrap metal that may contaminate the material stream on a conveyor belt.
Transfer point	The location at where a conveyor belt is being loaded or unloaded.
Transition distance	The distance between the last fully troughed idler and the flat driving, discharge pulley or tail pulley.
Transition idler	Idler sets between the tail pulley and the load zone that gradually transform the belt into the trough for loading.
Transverse reinforcement	An additional layer of single polyamide cords in custom-made pitch and diameter for increased rip and impact resistance.
Traveling plow	A plowing device that can be moved over the carrying side of a conveyor belt to deflect material to alternate discharge points along its run.
Tripper conveyor	A rail mounted device with a traveling take-up that can move the discharge end of a conveyor to multiple points along a straight line to fill individual hoppers or bins. A device for discharging material from a belt.
Trough	the shape a belt with the edges raised allowing it to carry more material without spilling over its edges.
Troughability	The property of a belt that permits it to conform to the contour of troughing idlers.
Trough angle	The angle (from horizontal) at which the belt edges are troughed to help center and contain the load.

Troughing idler	A carrying idler consisting of horizontal center roll with incline wing rolls on both sides that forms the carrying side of the belt into a trough.
TT drive	A belt-to-belt booster drive to reduce belt tension. Originally from the German term "Treib-Traggurt".
Tube Conveyor	A conveyor where the belt is formed into a closed tube after it is loaded, typically used to prevent spillage and carry material of a long distance.
Turbine	A machine in which rotating vanes are driven by steam generator to produce electricity.
Turnover	A system installed in a conveyor that inverts the belt, usually to control carryback by keeping the load-carrying "dirty" side of the belt up.
U	
UHMW	Ultra-High Molecular Weight polyethylene, a plastic material commonly used as a chute liner or low-friction belt support surface.
Underground mine	Also known as a deep mine. Usually located several hundred feet below the earth's surface, an underground mine's coal is removed mechanically and transferred by shuttle car or conveyor to the surface. Most underground mines are east of the Mississippi River and account for about 39 percent of total annual US coal production.
Unit train	A long train of between 6- and 150 or more hopper cars, carrying only coal between a single mine and destination. A typical unit train can carry at least 10,000 tons of coal in a single shipment.
V	
V-plow	A "V" shaped device designed to remove material from the surface of the conveyor belt. Commonly placed on the return side of a conveyor belt to prevent material being entrapped in-between the belt and the pulley.
V-return idler	A return idler that incorporates two rolls in a downward 10-15 degree "V" configuration designed to improve belt tracking by allowing the belt to settle in the center of the "V".
Vibrating, vibratory feeder	A type of feeder that uses a suspended or isolated trough with an attached vibrator to move material from a bin or hopper into a transfer chute.
Viscoelasticity	The property of materials that exhibit both viscous and elastic characteristics when being deformed. Viscoelasticity is the result of the diffusion of atoms or molecules inside of an amorphous material.
Viscosity	The resistance of a material to flow under stress. The higher the viscosity, the thicker the material.
Vulcanization	An irreversible process during which a rubber compound, through a change in its chemical structure, becomes elastic.
Vulcanized splice	A type of splice between two conveyor belt ends, which each belt end is layered, overlapped and bonded together, using heat and pressure (hot vulcanization) or a chemical bonding agent (cold vulcanization), which does not require a vulcanizing press
Vulcanizer	A mobile curing machine for field splicing (also called press).
W	
Wander	See mistracking
Warp	The lengthwise yarns in a woven fabric.
Washbox	An enclosure containing a series of belt cleaners and spray bars for belt cleaning.
Wear liner	A layer of material (UHMW, ceramic, AR, etc...) used to line an area to prevent wear and damage to the outer shell of the structure.
Weft	The crosswise yarns in a woven fabric.
Weldment	A fabricated metal component held together by welded joint(s).
Wing idler, roller	Either of the outer rollers in a troughed idler set, mounted at an angle to the center roll.
Wing Pulley	A pulley with radial vanes extending from a supporting structure to the center of the shaft to minimize trapping of material between the belt and the pulley. Generally used as tail pulleys.
Wrinkle	An appearance usually resulting from curing with separation paper or cloth.
X	
Y	

Yarn	A generic term for continuous strands of textile fibers or filaments in a form suitable for knitting, weaving to form a textile fabric.
Young's modulus	The stress per unit strain for elastic materials.
Z	
Zero load	A reference load applied in taking an initial reading and prior to determining compressibility or extensibility.
Zero speed switch	Electrical switches used to detect the stoppage of a rotating shaft, such as on a conveyor drive motor.
Zero rake	Belt cleaner angle of attack where blades are installed perpendicular (90 degrees) to the belt line.