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CORTINOVIS MACHINERY AMERICA, INC.

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Eurolls Group News

Cortinovis Machinery, Eurolls, Sictra, Teurema. & Vitari

Exhibiting at InterWire 2011 Atlanta,GA

Booth Number 1739

Cortinovis Machinery Delivers Next Generation of Tubular Strander for Steel

The new Tubular Strander designed by Cortinovis Machinery has been realized. This machine, designed specifically for the high carbon steel market incorporates all the latest technologies required by our customers producing wire rope, steel conductors for ACSR and high carbon steel armouring. This design includes a special braking system, automatic bobbin depletion compensation, highly efficient loading system and a user friendly pre-former and post former.

Our facility in Monterey, Mexico (EUROLLS DE MEXICO) can handle the production of new TUNGSTEN CARBIDE rollers and can regrind worn rolls that are no longer in tolerance.

INTERWIRE TRADE EXPOSITION

Atlanta, Georgia
May 3-5, 2011
Booth 1739

Inside this edition:

Ask our CMA salespeople about Rolling Cassettes, accessories and rolls for compacting stranded wire.

The Advantages in Cold Rolling with Cassettes, Compared to Traditional Dies.

Immediate increase in wire production

This is due to a reduction in downtimes or stoppages caused by die changes. Unfortunately due to their limited working life (approximately 40 tons as an average on all the blocks), and related wire pointing/welding processes (in order of 15 to 20 minutes per die per change) using Eurolls rolling cassettes can result in an increase in the efficiency of the process by 10 to 15% on average.

The Eurolls cold rolling cassette units use tungsten carbide rolls which have a working life, between regrinds, in excess of 2500 ton (small diameter tungsten carbide rolls) on last block and 5,000 ton on average on the other blocks for low carbon material.

Therefore, the line stoppages normally associated with the die substitution are reduced/eliminated and now become wire production times.

Lower pulling force (or higher line operations speed)

The cold rolling principle requires a lower pulling force because of the different type of friction between the wire and the reduction tool (sliding-friction with dies and rolling-friction with cassettes). A typical value of sliding-friction is 0.18 and a typical value of rolling-friction is 0.04 for materials such as steel against hard metal. The reduction of pulling force consequent to the use of rolling cassettes is variable from 10 to 15% (depending on the entry material's mechanical/chemical properties and the surface condition) when compared to the die-drawing process. This can be translated into either a lower energy consumption when operating at the same speed as with dies or higher achievable working speed when operating at the same energy consumption (and heat production) as with dies.

Reduction in wire breaks

The forces on the wire developed during the rolling process are lower than those on the drawing process and this quite often results in a reduction in the number of wire breakages (average reduction of breaks 7 to 10 times). This also will increase the efficiency of the process by an additional 5% on average.

Reduction of the cost for operating personnel

Due to the higher efficiencies achieved in the considerations made in points (1) and (2) and the savings associated with less die replacement for wear or wire breaks, a sensible reduction of operating personnel is achievable. One operator can easily attend to more than one drawing line, so that a saving of 30 to 50% of the personnel cost can be reasonably considered.

Reduction in lubricant consumption

Each die box is a source of lubricant consumption because it is required to lubricate both the dies and the wire (to reduce friction forces on capstan surface). The cold rolling cassettes do not need lubricant to perform the actual wire reductions. As mentioned above, only the first block will be fitted with a die-box (rotating) where the consumption of lubricant will represent 30 to 40% of that total used in a wire drawing line that is equipped with 100% dies. This means that the lubricant consumption figures, and therefore costs, can be reduced by 60 to 70% with the cold rolling process. A possible additional advantage could also be the smaller quantity of lubricant present on the wire surface. This reduced quantity of lubricant could be an advantage when successive work cycles require a clean wire surface e.g. less residue formation/ deposit in the washing tanks just before galvanizing process etc.

The Advantages in Cold Rolling with Cassettes, Compared to Traditional Dies. (cont.)

Less air pollution

This major quantity of lubricant (see point 2 and 4) guarantees a reduction in the work place pollution levels as well and, as a direct consequence, the dimensions of the required dust exhaust and filtering systems.

Elimination of sophisticated/costly Rod Cleaning Processes and Salt Coating (Lime / Borax)

The tungsten carbide rolls used with the cold rolling cassettes, are insensitive to mill scale, surface imperfections and light surface rust. Simple and less expensive mechanical descalers can now be successfully used instead of more costly processes such as chemical cleaning (now environmentally unacceptable and expensive), blasting units (sand or scale) or complex descalers (brushing/belt cleaning with reverse bending etc.) A further salt coating of rod / wire is no longer needed as the salt function of the lubricant carrier is obviously superfluous.

Use of cold rolling cassette units into either new or existing wire production lines:

The insertion of the cold rolling cassette units into a wire production line (new or existing) does not require any modification to its mechanical or electrical components other than the simple insertion of a base plate for the cassette support. Therefore, the production line is able to produce the final exit wire using two methods – cold rolling or drawing. This means that all exit wire can be produced using the most cost efficient production method in accordance with the required dimensional/surface specification e.g. ovality tolerance, surface finish, lubricant coverage, etc.

The above are just some of the advantages that the Eurolls cold rolling cassette system has introduced to the field of wire production. This independent on whether the cold rolling cassette units are to be used with an existing or totally new wire production line.

EUROLLS GROUP NEWS

CORTINOVIS MACHINERY – AMERICA

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The EUROLLS GROUP was established in 1987. Over the past 22 years the company has grown significantly with the cooperation of customers like you. We strive to provide the highest in quality machinery and consumable products. Our service department is committed to understanding our customers' concerns so we can provide the quickest possible solutions to meet their satisfaction. Our commitment to research and development, staying current with technology, and employing the most experienced personnel are all key to the success of the EUROLLS growth process over the past two decades. We thank you, the customer, for your continuous support.

EUROLLS GROUP PRODUCTS

Multi Pass Cold Drawing Lines

Multi Pass Cold Rolling Lines

Descaling Rolls Pinch Rolls

Guide Rolls Feed Rolls

Finger Bay Rollers

Turkshead Rolls

Tubular Stranders

Double Twist Stranders

Monobitorsion

Double Twist Bunching, Stranding and Laying Up Machines

Rigid Cage Stranders

Central Tube Stranders

Electro Welded Collated Nail Making Machine

Take-up Lines

Machines for Hexagon Wire Mesh and Gabbions

Descaling Units

Capstans

Pointing Machines

Rolling Cassettes

Butt Welders

Straight and Cut Machines

Horizontal and Vertical Payoffs

Horizontal and Rosett Spools

Lubricant Applicators

Stress Relieving Devices

High Speed Nail Making Machines

Coilers Pulleys

Barbed Wire Machines

Single Twist Cablers

Planetary Stranders

Automatic Chamfering Machine

Fixed and Collapsible Spools

Chain Bending Machinery

Chain Welding Machines

Chain Link Fencing Machinery

Rewinding Equipment

Machines To Produce Hangers

Rolls for HOT Rolling Mills

Straightening Rolls

Flattening Rolls

Inline Compact Stretching Unit

Steel Fiber Production Machine

Rolls For Cold Rolled Wire

Lattice Girder Machines

Automatic Spoolers