



**WEIR**

**Minerals**

**GEMEX®  
Belt Tensioning System**



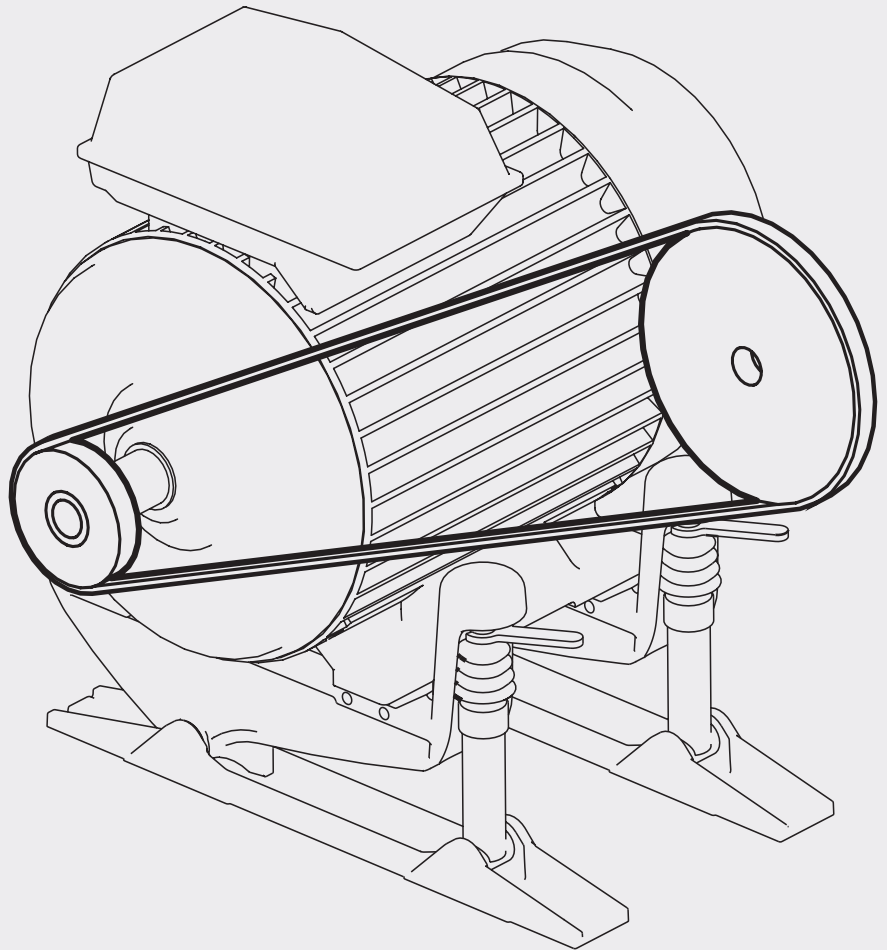
## Why have a Gemex® belt tensioning system?

The Gemex® belt tensioning system can enhance the efficiency of your machine, boosting productivity and reducing operating costs, with:

- consistently high performance,
- belt alignment required only once, at installation,
- fewer, shorter production stops,
- lower consumption of spare parts,
- maximum wear life of all components.

Benefiting from more than 20 years' experience in belt transmission design and manufacture, Gemex® belt tensioning systems have become the standard in many process industries worldwide, and are ideally suited to the Warman® slurry pump range.

The Gemex® unit has been specifically designed to integrate with our range of Warman® centrifugal pumps. Its design makes using and maintaining Warman® pumps even more efficient and less time consuming.



- **Reduce your number of scheduled belt changes**
- **Shorten the time required to change your belts**
- **Minimise your spare parts' consumption**

Belts have been used as traction devices for hundreds of years. Since the beginning of industrialisation, belt transmissions have been critical components in keeping machines and production running. But today's high performance belt transmissions are very different from the initial systems.

A modern belt transmission is energy efficient, quiet, and flexible and has a high capacity relative to its size – it is one of the most common power transmission systems used in a variety of industrial applications. The Gemex® belt tensioning system provides a solution that not only retains the advantages of belt transmission, but also makes maintenance faster, easier and more precise.

The innovative Gemex® belt tensioning system design ensures maintenance is safe and easy, and downtime is minimised.

The Gemex® belt tensioning system is an integral part of an efficient belt transmission, making it possible to change belts on any critical pump in just a few minutes. Re-alignment is unnecessary when changing belts or adjusting tension – it only needs to be done once during the initial installation. Correct alignment and belt tension gives your belts, pulleys and bearings longer and more consistent wear life, while also providing conditions for maximum efficiency.

Gemex® belt tensioning systems were historically used in the mining and paper industries, however, today they can be found in almost every industrial environment that uses belt transmissions, as well as in clean environments, such as the pharmaceutical industry, hospital ventilation systems and public buildings.

The Gemex® belt tensioning system is designed to enhance the performance of belt transmission systems.



1. Slackened
2. Tensioned

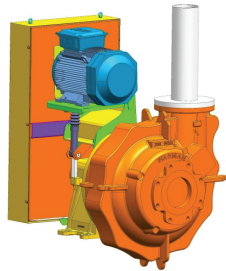
The design makes maintenance and use of the pump even more efficient and less time consuming.

# Gemex<sup>®</sup> belt tensioning systems for Warman<sup>®</sup> AH<sup>®</sup> and Warman<sup>®</sup> M centrifugal pumps

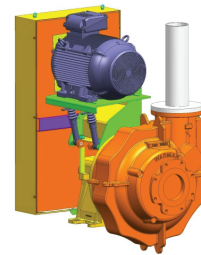
The following table shows Gemex<sup>®</sup> belt tensioning system sizes that fit the Warman<sup>®</sup> centrifugal pump range.

Gemex<sup>®</sup> belt tensioning system for CV design availability matrix for Warman<sup>®</sup> AH<sup>®</sup> and Warman<sup>®</sup> M centrifugal pumps.

Single cylinder



Twin cylinder



Pump	Allowable Discharge Positions	100	112	132	160 M	160 L	180 M	180 L	200 L	225 SM	250 SM	280 SM	315 SM	315 L
1½/1 B-AH	A, G	•	•											
2/1½ B-AH	A, G	•	•											
3/2 C-AH	A, G	•	•	•	•	•	•	•						
4/3 C-AH	A, G	•	•	•	•	•	•	•						
4/3 D-AH	A, G				•	•	•	•	•	•				
4/3 DD-AH	A, G				•	•	•	•	•	•				
6/4 D-AH	A, G				•	•	•	•	•	•				
6/4 DD-AH	A, G				•	•	•	•	•	•				
6/4 E-AH	A, G				•	•	•	•	•	•	•	•		
6/4 EE-AH	A, G				•	•	•	•	•	•	•	•		
8/6 E-AH	A, G				•	•	•	•	•	•	•	•		
8/6 EE-AH	A, G				•	•	•	•	•	•	•	•		
10/8 E-M	A, G				•	•	•	•	•	•	•	•		
10/8 EE-M	A, G				•	•	•	•	•	•	•	•		
12/10 E-M	A, G				•	•	•	•	•	•	•	•		
12/10 EE-M	A, G				•	•	•	•	•	•	•	•		
8/6 F-AH	A, G										•	•	•	•
8/6 FF-AH	A, G										•	•	•	•
10/8 F-AH	A, G										•	•	•	•
10/8 FF-AH	A, G										•	•	•	•
10/8 F-M	A, G										•	•	•	•
10/8 FF-M	A, G										•	•	•	•
12/10 F-M	A, G										•	•	•	•
12/10 FF-M	A, G										•	•	•	•



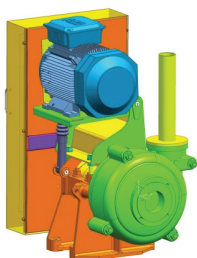
**Note:** For discharge position A, the diameter of the discharge pipe should be the same diameter as the pump outlet to clear the motor. Pipe adaptors should only be fitted above the motor, or an eccentric adaptor should be used. There are also other models and sizes, information available on request.

## Gemex® belt tensioning systems for Warman® WBH® pumps

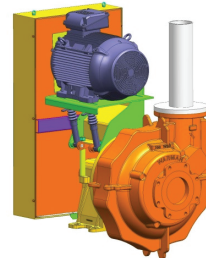
The following table shows Gemex® belt tensioning system sizes that fit the Warman® centrifugal pump range.

Gemex® belt tensioning system for CV design availability matrix for Warman® WBH® pumps.

Single cylinder



Twin cylinder

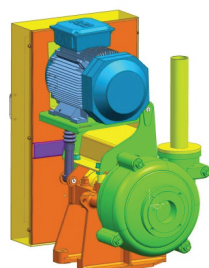


Pump	Allowable Discharge Positions	160 M	160 L	180 M	180 L	200 L	225 SM	250 SM	280 SM	315 SM	315 L
75PC-WBH	A, G	•	•	•	•	•	•				
100PQC-WBH	A, G	•	•	•	•	•	•				
100QC-WBH	A, G	•	•	•	•	•	•				
150QRC-WBH	A, G	•	•	•	•	•	•				
150RC-WBH	A, G	•	•	•	•	•	•	•	•		
200RSC-SBH	A, G	•	•	•	•	•	•	•	•		
200SC-WBH	A, G							•	•	•	•

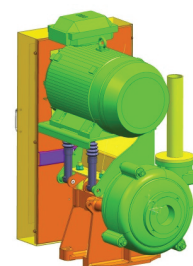
## Gemex® belt tensioning system for Warman® MU pumps

Gemex® belt tensioning system for CV design availability matrix for Warman® MU pumps.

Single cylinder



Twin cylinder



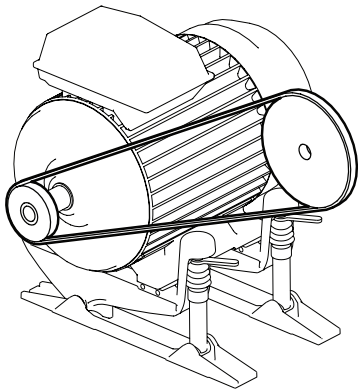
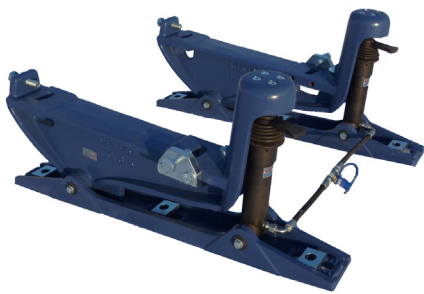
Pump	Allowable Discharge Positions	100	112	132	160 M	160 L	180 M	180 L	200 L	225 SM	250 SM	280 SM	315 SM	315 L
80B-MU	A, G	•	•											
100C-MU	A, G	•	•	•	•	•	•	•						
150D-MU	A, G				•	•	•	•	•	•				
200D-MU	A, G				•	•	•	•	•	•				
200E-MU	A, G				•	•	•	•	•	•	•	•		

# The Gemex<sup>®</sup> belt tensioning is also available in its original design, which can be used on a wide range of process equipment.

The Gemex<sup>®</sup> belt tensioning system is an integral part of an efficient belt transmission.

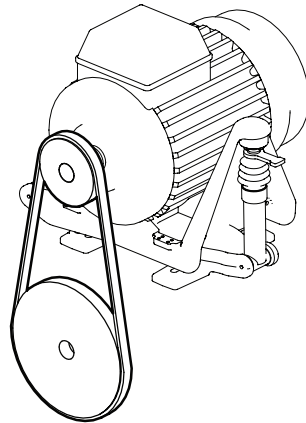
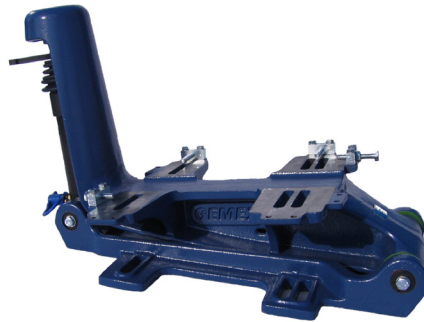
## Horizontal installations

- Motor mounted horizontally, with belts operating to the side.
- Examples include ventilation fans and blowers.



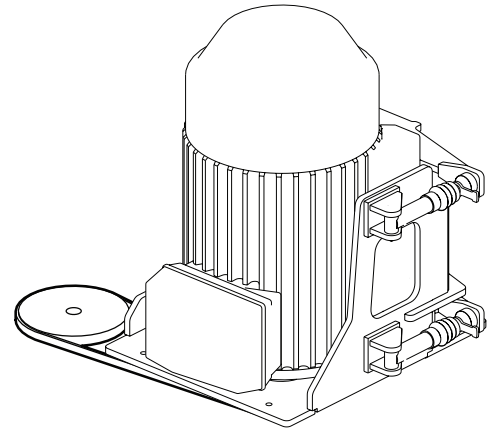
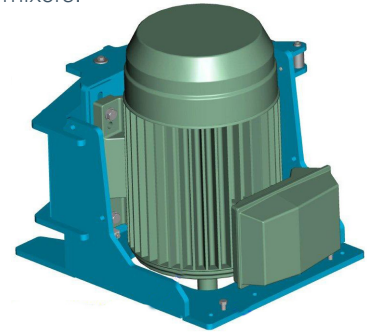
## Top mounted installations

- Motor mounted to the top, belts operating downwards.
- Examples include pumps and gearboxes.



## Vertical installations

- Motor mounted vertically, with belts operating to the side.
- Examples include trainers and mixers.



Gemex<sup>®</sup> belt tensioning systems are available in standard models for belt drives from 1 kW up to 500 kW. We can also offer bespoke designs for machines where our standard models cannot be applied.



# Industries where you can find Gemex® belt tensioning systems:

## Mining and minerals

- underground mines
- open pit mines
- gravel pits
- rock crushers and concrete
- mineral processing

## Food industry

- coffee processing
- bread and crisps
- breweries
- sugar refineries
- flour-mills

## Chemical industry

- pharmaceutical
- oil refineries
- petrochemical industry
- soap manufacturing

## General industry

- pulp & paper
- car industries
- steelworks
- hospitals
- district heating plants

Since the early 1990s, Gemex® belt tensioning systems have helped customers enjoy excellent maximum output and low maintenance costs from their belt transmissions.



1. Quarry, Sweden. Breaker. Gemex® 315H belt tensioning system.

2. Forest / chemical industry, Sweden. Blower. Gemex® 250-280H belt tensioning system.

3. Paper mill, Sweden. Strainer Gemex® 315V belt tensioning system.

4. Food industry, Fan, 1000 kW. Gemex® Special IEC500 belt tensioning system.



## Minerals

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