MACKINA - WESTFALIA

Product description

CENTRAL CHAIN CONVEYOR
EKF-2

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INTRODUCTION

The EKF-2 armored conveyor with a central chain of 30x108 covers the top of the range. It is a very robust conveyor. Its transport capacities can reach up to 1,300 t/h and 200m. in length.

The transport channels are manufactured in E74-V profile.

The special characteristics of these profiles, and consequently of the transport channels, make them particularly adaptable for use as pit conveyors capable of supporting high production cutting machines (shearers, plugs..)

Given the modular design of this conveyor, it allows the assembly of two drive heads (four drive groups of up to 160 Kw) or one drive head (two drive groups) and a return and tensioning unit.

With different combinations we can have an installed power from 1x90 kW to 4x160 kW.

Its dimensional characteristics allow an easy handling of all its elements.

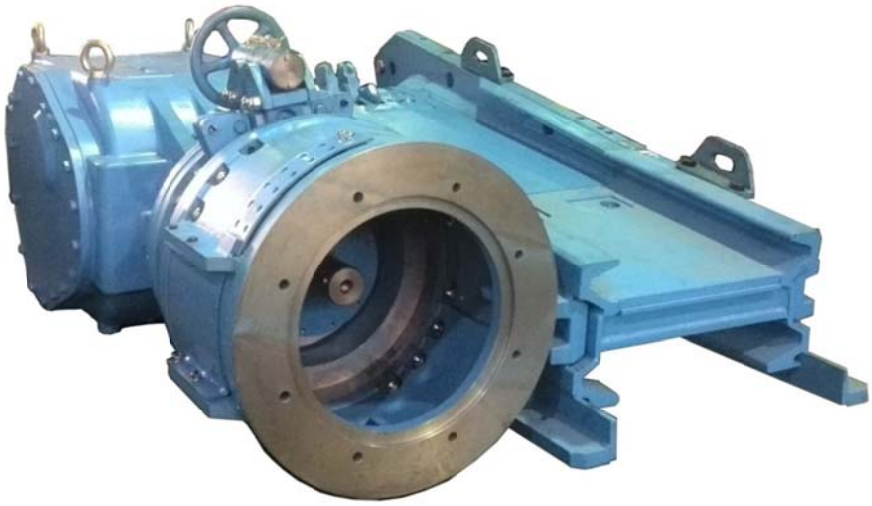
Maximum length 200m
Capacity ..... 1300 t/h
Central Chain Type.....30x108
Transport speed Z=7; 50Hz.....0,95m/s

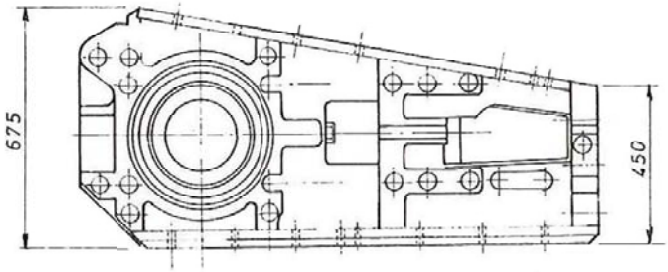
COMPONENTS

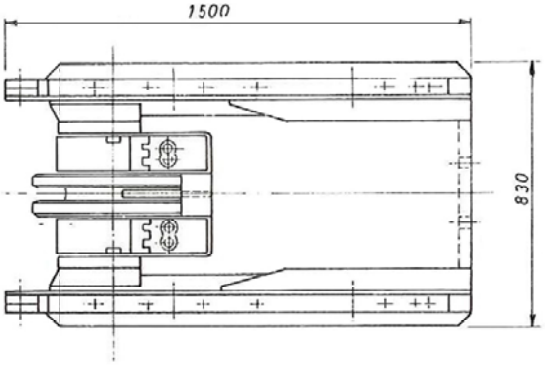
Driving head

Composed by:

- Chassis: Solidly built steel frame with seats on both sides to mount the drive units indistinctly.
- One drive star Z=7 mounted on a drive shaft.
- A double grooved drive shaft mounted on spherical bearings
- A chain deflector.
- Splined hollow-shaft gearbox: angular input and three gear trains, with the first bevel and the two remaining helical gear trains.
- Hydraulic coupling: integrated inside a steel housing that serves as a link between the gearbox and the motor.
- Housing incorporating disc brake for chain tensioning







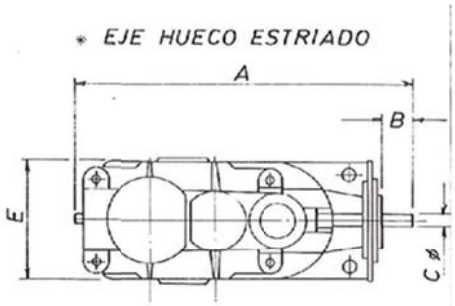
DESCRIPTION	REFERENCE	Weight Kg
MOTOR HEAD		
Driving head frame	01TM000301000400	1.455
Drive Sprocket Z=7	01TM000310900700	155
Double drive shaft	01TM000310900600	180

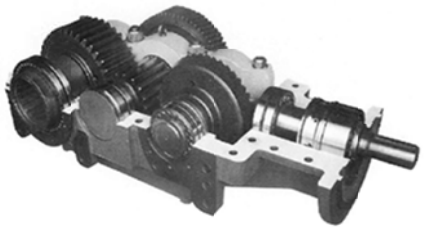
Gearbox

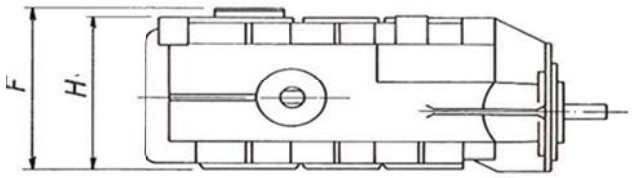
The reduction is achieved by means of three gear trains. A bevel-helical group and two cylindrical-helical trains with lapped and ground tooth profiles respectively.

The casing, which is of the bipartite type, is symmetrical with respect to a horizontall median plane, built in cast steel and totally watertight. A hermetic seal is achieved on the input and output shafts by means of labyrinths and grease seals.

The lubrication is done by immersion and splash in oil bath. The efficiency of these reducers is 92%. They can be mounted on both sides of the corresponding drive head



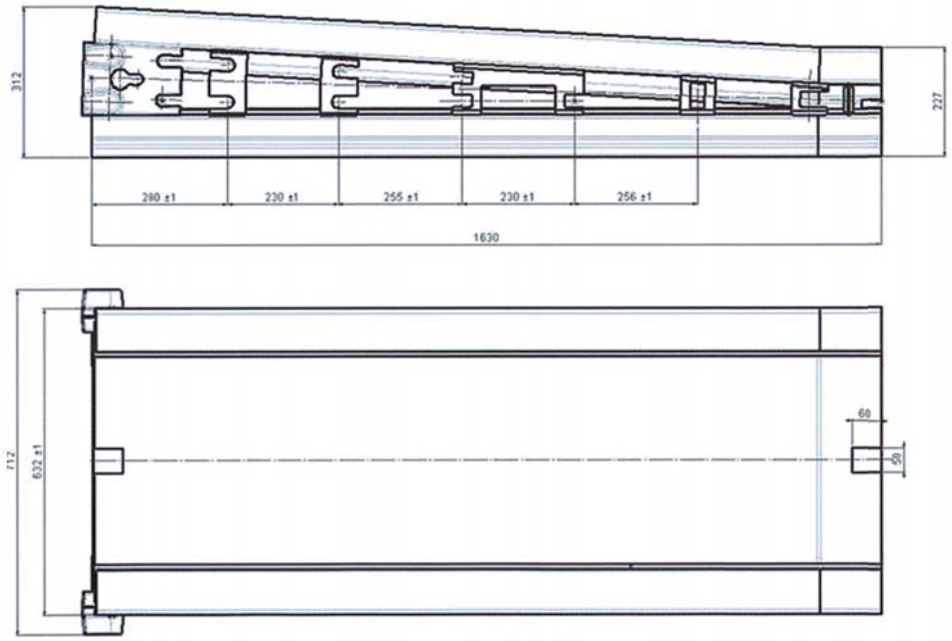




CONVEYOR	GEARBOX		A	B	C	D	D´	E	F	G	H	I	J	Peso
			mm											Kg
EKF-2	**KSTIII-120 Hollow grooved shaft**	01TM000447000195	1690		140	75		650	742		680			1970

Connection pan

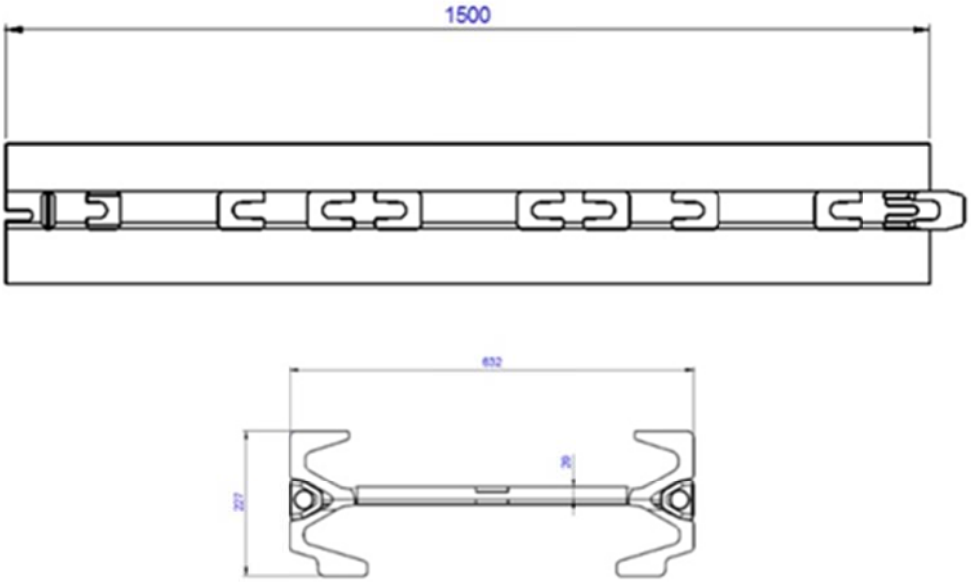
To achieve coupling between the normal channels and the drive head. Manufactured with sigma profile and special treated steel bottom.



CONVEYOR	REFERENCE	A	B	C	D	E	Peso
				mm			Kg
EKF-2	01TM000330300100	1630	278	170	510	566	500

Pans

They are made of steel treated to avoid wear. Manufactured with special sigma profile and bottom plate with stamped overlap. The screws to join the channels are included. The union between channels is made as shown in the figure.

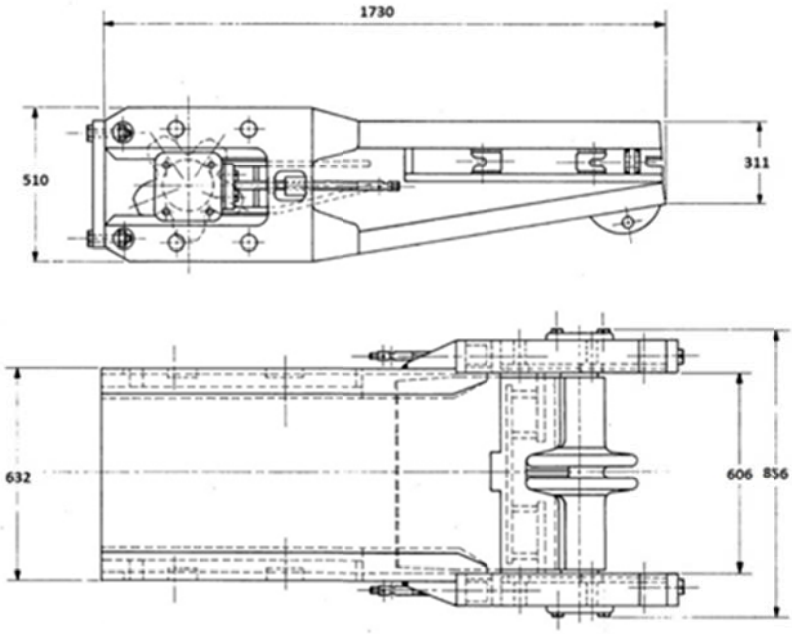


CONVEYOR	REFERENCE	A	B	C	D	E	Peso
				mm			Kg
EKF-2	01TM000330100700		632	227	20	1500	350

Forwarding station

Built in sigma profile, they form a very solid set, very resistant to collapses.

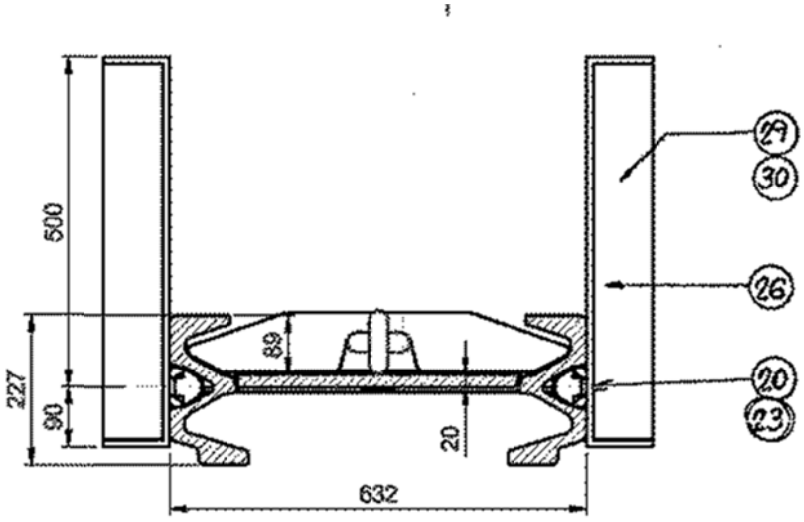
The return drum, with its driving star in the center for the chain drive, slides on side guides of the chassis, driven by a spindle system, in order to tighten the chain properly. The mentioned tensioning system can be replaced by a hydraulic device.



CONVEYOR	REFERENCE	A	B	C	D	E	F	Peso
		mm						Kg
EKF-2	01TM000301501600	606	856	1730	510	311	632	1.075

Standard Channel Enhancement

Designed to increase the section of the canal by facilitating loading and increasing transport capacity.



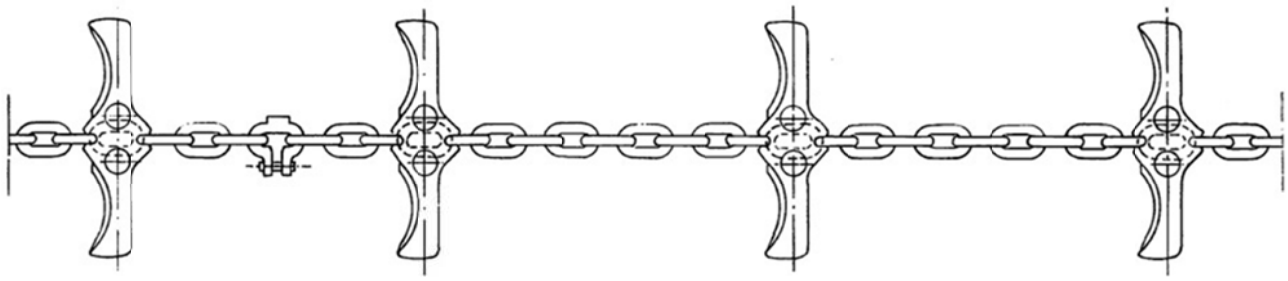
Reference: 01TM000331503700

Chain

The chain is made of chrome-nickel-molybdenum steel according to DIN22.252-2.

The chain sections are connected by means of a connecting link, whose breaking load is identical to that of the chain.

The scraper bars, built in one piece and with hardened ends, has a large contact surface with the product, which allows upward and downward transport with large slopes.



30x108

conveyor	LINKS	DISTANCE NETWEEN CRAPER BARS mm
EKF-2 RECTO	10	1080
EKF-2 CURVA 3º	8	864
EKF-2 CURVA 11º	6	648

Main references

ELEMENT	REFERENCE
CHAIN SECTION 30X108 DIN 22252-2 of 235 LINKS (25,38M)	04950473001080235
SCRAPER BAR	01TM000340100300
FORK	01TM000340300300
CONNECTING LINK	02RUD58916