



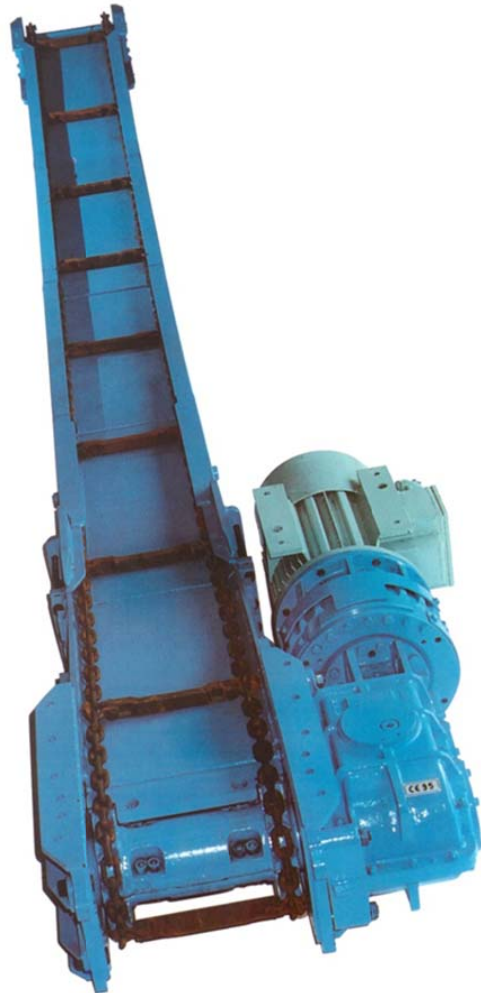
MACKINA - WESTFALIA



Product description

## DOUBLE SIDE ARMORED CHAIN CONVEYOR PFI-400/500

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### 1. GENERAL

The PFI double side chain conveyor, is specially designed for exploitation of layers of 1.5 to 2.5m of power, as well as in auxiliary works of mines of great production.

Depending on the capacity, the PFI-400 is used up to 250t/h or the PFI-500 up to 350t/h.

Its most widespread application is in the exploitation of long faces up to 200 m long with a maximum capacity of 350 t/h. It can be installed with one or two drive heads with a maximum power per head of 110 kW, using 45, 55 or 90 kW engines.

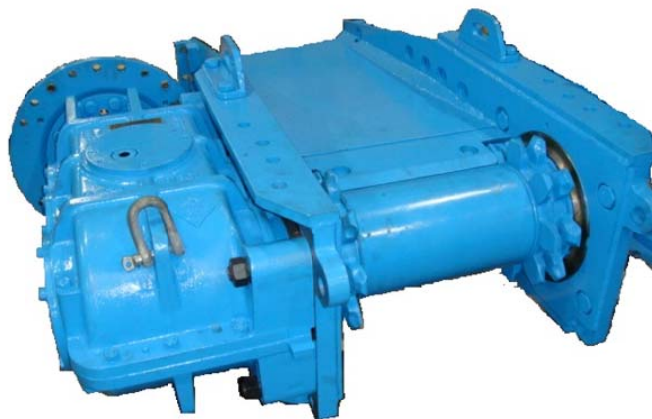
Maximum length.....	200 m
Capacity .....	250/350 t/h
Maximum Power .....	2x110kW
Chain Type.....	18 x 64
Transport speed 50 Hz.....	0.65 m/s
Pan weight PF1 400.....	148 Kg
Pan weight PF1 500.....	168 Kg

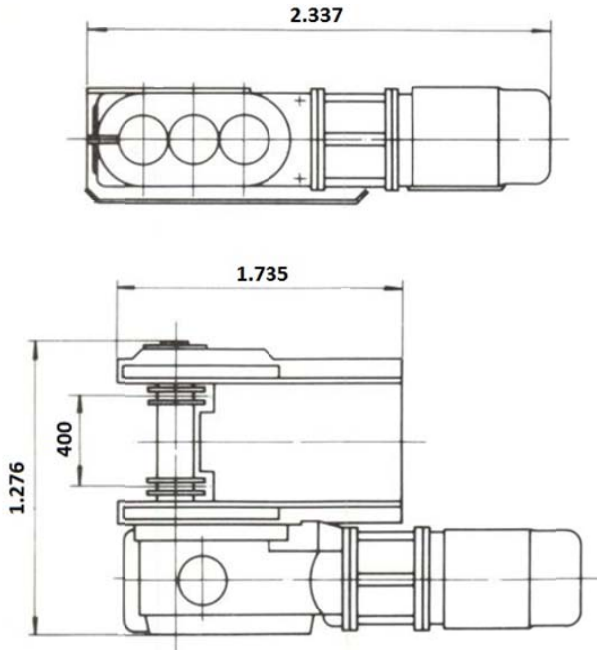
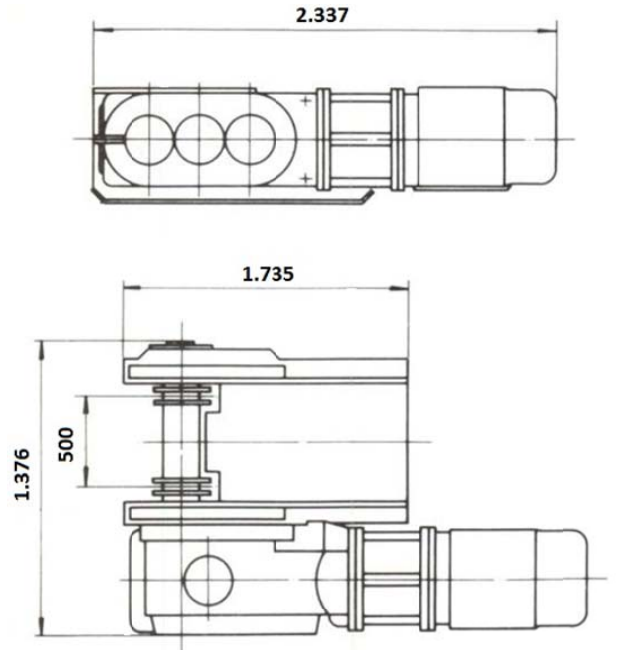
### 2. COMPONENTS

#### 2.1. Drive Head

Composed by:

- Chassis: Solidly built steel frame with seats on both sides to mount the drive units indistinctly.
- A driving drum, Z-8, C-18
- A false shaft, mounted on a spherical bearing, located on the opposite side of the gearbox.
- Two chain deflectors.
- Gearbox: Speed reducer: angular input and three gear trains.
- Hydraulic coupling: integrated inside a steel housing that serves as a link between the gearbox and the motor.
- Electric motor type B-5, with power 45 kW, 55 kW o 90 kW.



**DRIVE HEAD PFI 400**

**DRIVE HEAD PFI 500**


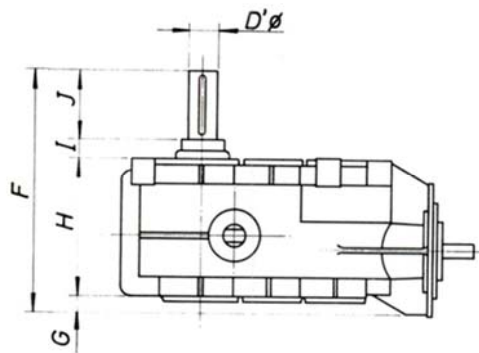
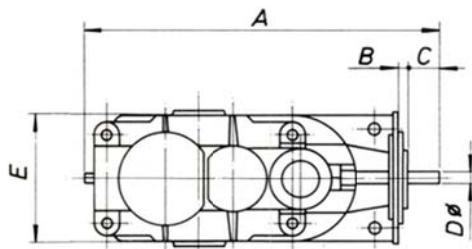
DENOMINACION	MODELO REFERENCIA	Potencia Kw	Velocidad m/s	Peso Kg
<b>DRIVE HEAD</b>				
Driving head frame PFI 400	01WL512101010000			461
Driving drum Z8 C18 eje 100Ø PF1 400	01WL512105020000			146
Driving drum Z8 C18 eje 120Ø PF1 400	01WL512110010000			146
Driving head frame PFI 500	01WL511125020000			610
Driving drum Z8 C18 eje 100Ø PF1 500	01WL511103010000			165
Driving drum Z8 C18 eje 120Ø PF1 500	01WL511105010000			165
False bearing for shaft 100Ø	01WL511103020000			55
False bearing for shaft 120Ø	01WL511105020900			56
<b>DRIVE LINE</b>				
Gearbox KSTIII-55	01WL913800000000			560
Gearbox KSTIII-58	01WL914003000900			763
Gearbox K-27	01WL914410000000			980
Hydraulic coupler	Yes			
Flameproof electric motor 45 kW ATEX	According to voltage			
Flameproof electric motor 55 kW ATEX	According to voltage			
Flameproof electric motor 90 kW ATEX	According to voltage			

**2.1.1. Gearbox**

The reduction is achieved by means of three gear trains. A conical-helical group and two cylindrical-helical trains with lapped and ground tooth profiles respectively. The two-part housing is symmetrical in relation to a half horizontal plane, made of cast steel and totally watertight. A hermetic seal is achieved on the input and output shafts by means of labyrinths and grease seals.

Lubrication is done by immersion and bubbling in an oil bath. The efficiency of these reducers is 92%. Can be mounted on either side of the corresponding drive head.

Depending on the capacity and speed requirements, 3 different types of reducers can be mounted, each with different types of reduction to fully adapt to the customer's requirements

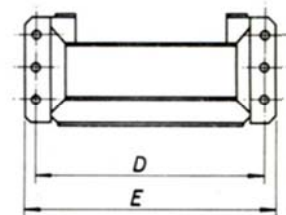
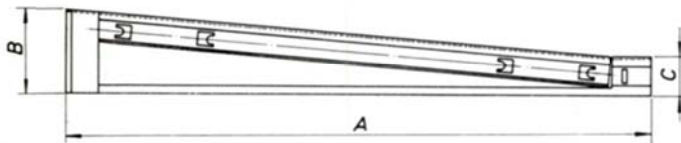


TRANSPORTADOR	REDUCTOR	A	B	C	D	D'	E	F	G	H	I	J	Peso Kg	
	KSTIII-55	01WL913800000000	1100	35	110	55	100	468	689	125	465	66	170	560
<b>PFI-400/500</b>	KSTIII-58	01WL914003000900	1188	30	110	55	120	500	750	77	413	66	170	760
	K-27	01WL914410000000	1404	14	161	65	129	610	776	145	415	77	139	980



### 2.2. Connection channel

Connection between the normal pans and the drive head. Manufactured with sigma profile and special treated steel bottom



TRANSPORTADOR	REFERENCIA	A	B	C	D	E	Peso
				mm			Kg
PFI-400	01WL512312010000	1490	290	184	400	664	
PFI-500	01WL511344030000	1490	290	184	500	764	185

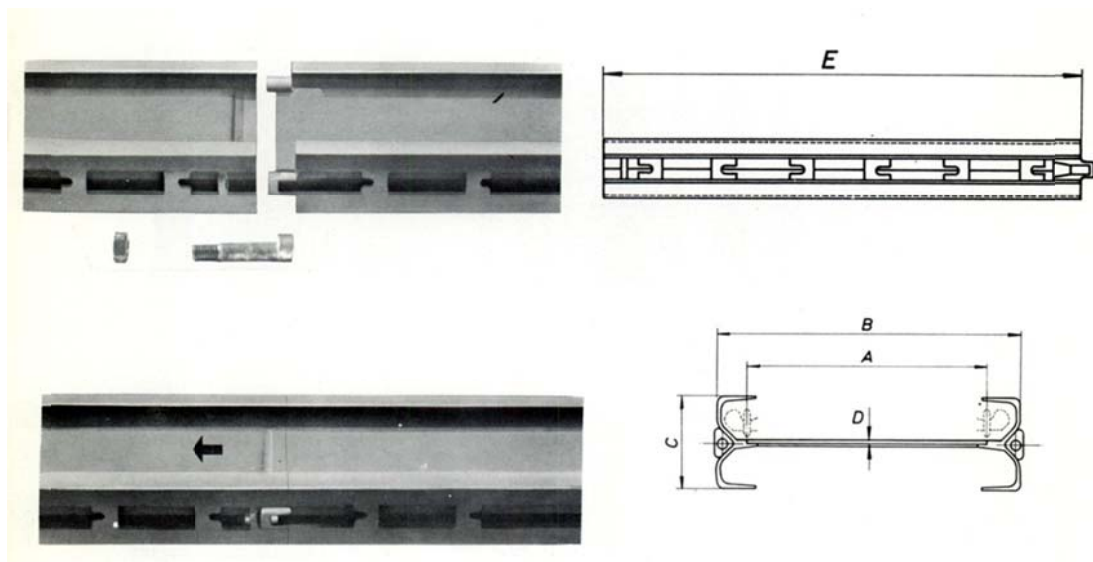
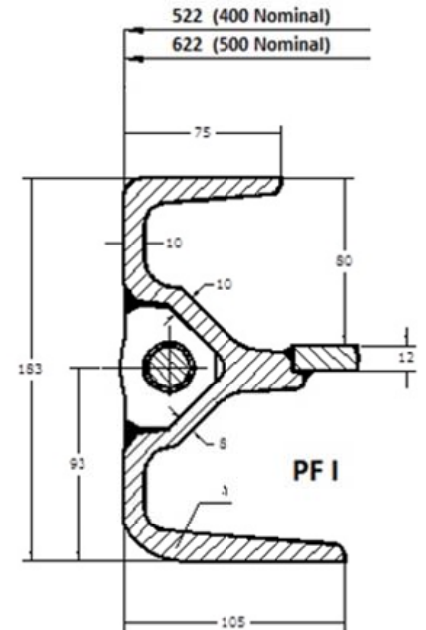
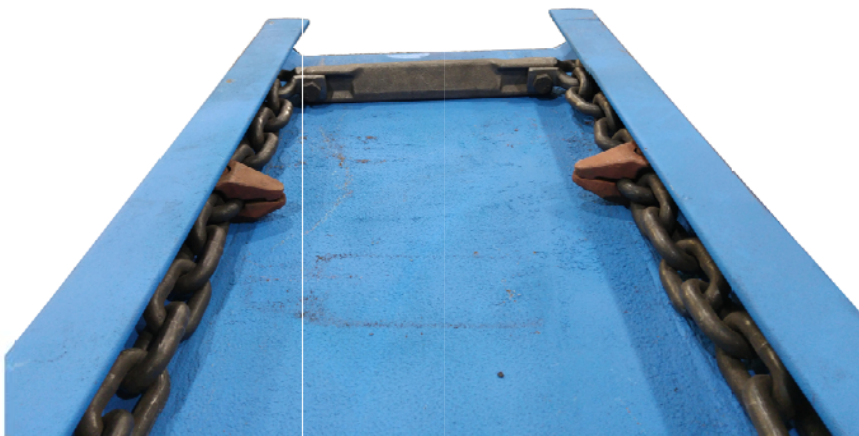




### 2.3. Pans

Steel channels treated to prevent wear. Manufactured with special sigma profile and stamped overlapping bottom plate. The connection screws between channels are included. The connection between channels is made as shown in the figure

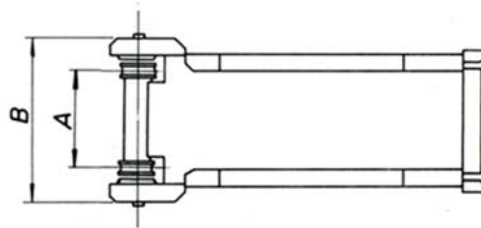
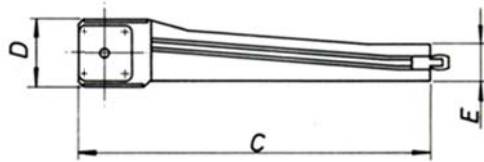
Standard length 1.500mm.



TRANSPORTADOR	REFERENCIA	A	B	C	D	E	Peso Kg
PFI-400	01WL512467000600	400	522	183	10-12	1500	155
PFI-500	01WL511476020000	500	622	183	10-12	1500	168

### 2.4. Forwarding station

Built in sigma profile, they form a solid set, very resistant to collapses. Normally the drum is star-shaped to avoid blocking by accumulation of fines, although it can also be grooved. The bearings on which the drum is mounted are amply dimensioned and their housing is watertight..



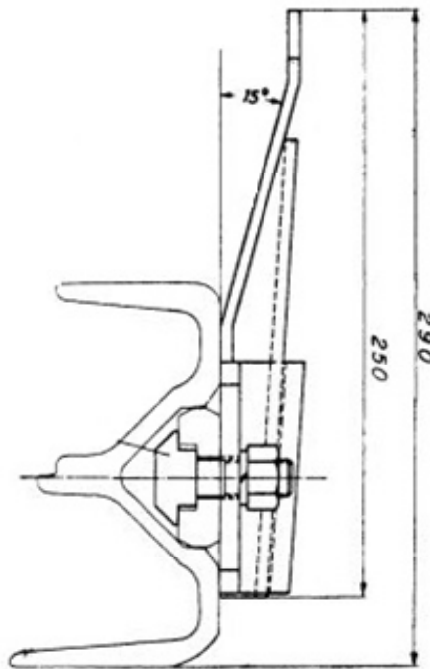
TRANSPORTADOR	REFERENCIA	A	B	C mm	D	E	Peso Kg
PFI-400	01WL512218000000	400	660	2230	370	183	
PFI-500	01WL51121600000091	500	760	2230	370	183	590





### 2.5. Enhancement plate

Designed to increase the section of the channel by facilitating loading and increasing the transport capacity. Allows to customize them according to the needs of use.

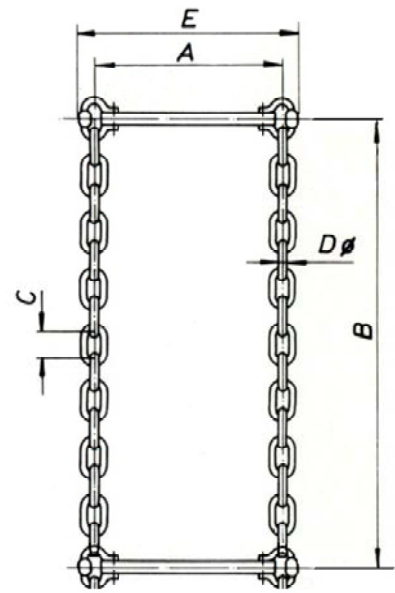


TRANSPORTADOR	REFERENCIA	Peso Kg
PFI 400/500	01WL5137020000080	18

### 2.6. Chain

The chain is made of special steel according to DIN 22252. The scraper bars and connecting links are made of stamped steel, and the screws are made of treated special steel. The connecting links, bolts and chain are designed for the same breaking load.

It is supplied as standard with 5.12 m. long chain assembled with its corresponding 15-link chain sections, scraper bars and false links.



MODELO	A mm	B mm	C mm	D mm	E mm	Carga de Rotura KN	Peso Kg	Denominación	Referencia
<b>PFI-400</b>	400	1024	64	18	344	410	105	Tramo de Cadena 18X64 15E DIN 22.252-2	04950471800640015
								Raclera de arrastre	01WL512601010010
								Falso Eslabón de unión	01WL21417227
								Tornillo 20X75 8.8	0495059200075
								Tramo de Cadena 18X64 15E DIN 22.252-2	04950471800640015
<b>PFI-500</b>	500	1024	64	18	344	410	109	Raclera de arrastre	01WL511606010010
								Falso Eslabón de unión	01WL21417227
								Tornillo 20X75 8.8	0495059200075





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