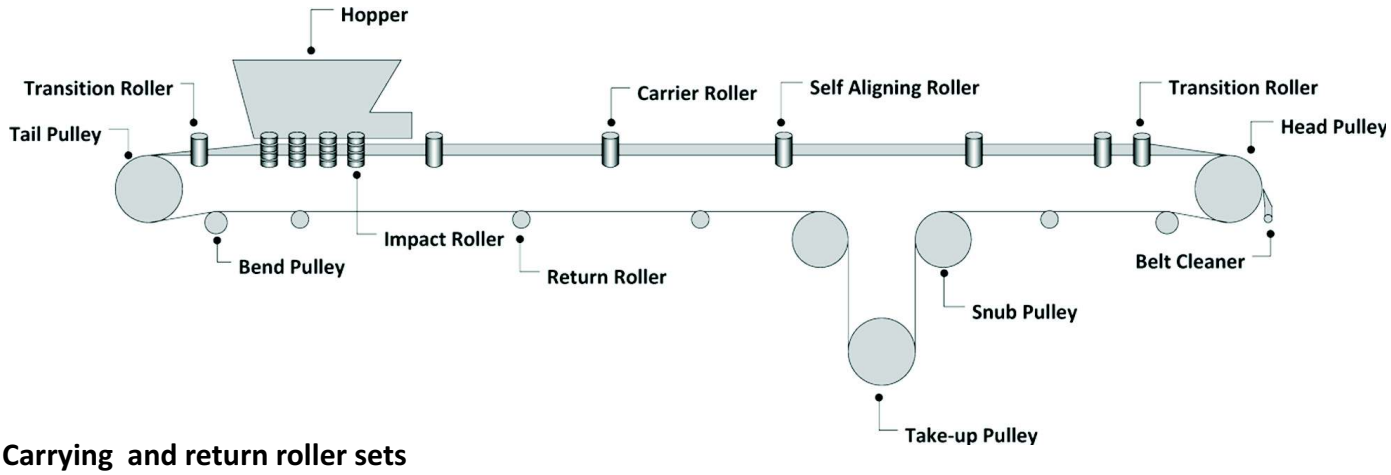
Potroll

Heavy Duty Rollers and Pulleys

ROLLERS AND PULLEYS

CATALOGUE

The basic components of a typical belt conveyor. In practice, according to the variety of uses, it is possible to have many other diverse combinations of load and unload areas, elevations, and other accessories.



Carrying and return roller sets

The carrying rollers are in general positioned in brackets welded to a cross member or frame. The angle of the side roller varies from 20° to 45°. It is also possible to arrive at angles of up to 60° using the "garland" suspension design. The return roller set may be designed incorporating one single width roller or two rollers operating in a "V" formation at angles of 10° . Depending on various types of material being conveyed the upper carrying sets may be designed symmetrically or not, to suit.

Drive pulley

The shell face of the conventional drive pulley or the motorised drum may be left as normal finish or clad in rubber of a thickness calculated knowing the power to be transmitted. The cladding may be grooved as herringbone design ; or horizontal grooves to the direction of travel; or diamond grooves ; all designed to increase the coefficient of friction and to facilitate the release of water from the drum surface. The drum diameter is dimensioned according to the class and type of belt and to the designed pressures on its surface.

Return pulleys

The shell face does not necessarily need to be clad except in certain cases, and the diameter is normally less than that designed for the drive pulley.

Deflection or snub pulleys

These are used to increase the angle of wrap of the belt and overall for all the necessary changes in belt direction in the areas of counterweight tensioner, mobile unloader etc..

Tension units

The force necessary to maintain the belt contact to the drive pulley is provided by a tension unit which may be a screw type unit, a counterweight or a motorized winch unit. The counterweight provides a constant tensional force to the belt independent of the conditions. Its weight designed according to the minimum limits necessary to guarantee the belt pull and to avoid unnecessary belt stretch.

The designed movement of the counterweight tension unit is derived from the elasticity of the belt during its various phases of operation as a conveyor. The minimum movement of a tension unit must not be less than 2% of the distance between the centers of the conveyor using textile woven belts, or 0.5% of the conveyor using steel corded belts.

Hopper

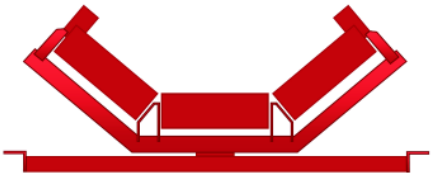
The hopper is designed to allow easy loading and sliding of the material in a way to absorb the shocks of the load and avoids blockage and damage to the belt. It caters for instantaneous charging of load and its eventual accumulation. The hopper slide should relate to the way the material falls and its trajectory and is designed according to the speed of the conveyor. Lump size and the specific gravity of the charge and its physical properties such as humidity, corrosiveness etc. are all very relevant to the design.

GENERAL APPLICATION GUIDE

Throughing roller stand for general carrying service
is produced with inclination degree of 20°, 30°, 35°, 45°

Throughing rubber impact roller stand protects belt by absorbing impact at loading and transfer point It's produced with retractable design with inclination degree of 30°, 35°, 45°

Flat carrier roller stand used to bulk handling material
such to prepare foundry sand, package and sort conveyor.



Throughing trainer stand automatically trains belt and protects edges from dam-age cause miss-alignment. It's produced with inclination degree of 30°, 35°, 45°

Return roller carries the empty belt on retun run.

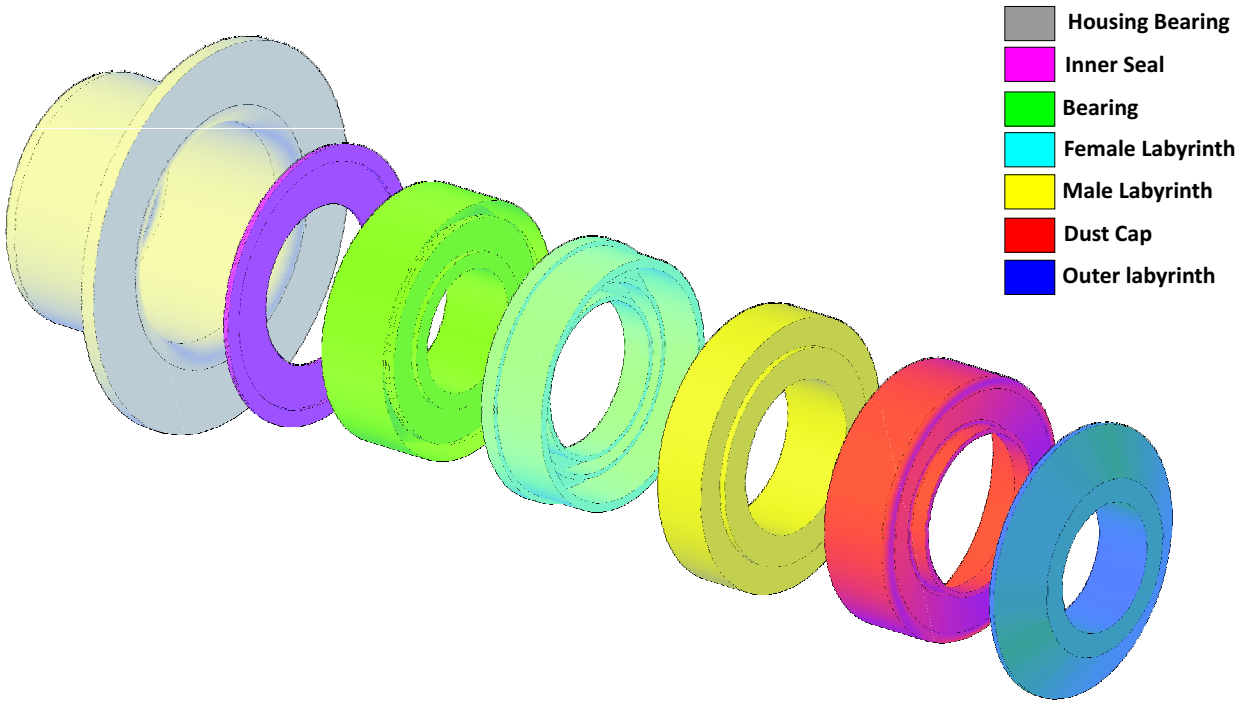
Rubber Disc Return roller used when wet, sticky material tends to cling to the belt. Also used to avoid corrosion. It's produced in NR or SBR.

Spiral Return roller used to clean from materials that adhere to the belt. It's produced in spiral rubber.

Rigid frame V return roller trains the return belt, adds benefit when carrying more capacities. It's produced with inclination degree of 5°, 10° and 15°.

Training return roller automatically trains the belt return
and protects edges from damage cause by belt miss-alignment.

ROLLER CONSTRUCTION



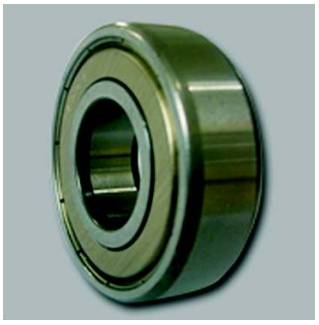
Bearings

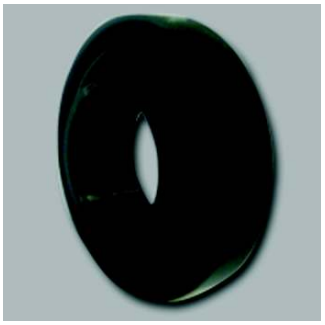
All conveyor idler rolls require the bearing and shaft assembly to operate under deflection conditions. The shaft is only supported at each end and therefore must accept the load from the shell to the bearings at each end. This results in shaft bending and angular deflection at the bearings. We chose Single Row Deep Groove Precision Ball Bearings because they:

- Satisfy deflection criteria without unreasonable increases in shaft diameters between the bearings.
- Will accept the axial thrust component of the load generated by conveyor belt movement across the roller face or where rollers are inclined in the wing position.
- Permit practical shaft diameters which satisfy bearing deflection criteria and allow manufacturers to use normal dynamic capacity ratings to assess B10 bearing life.
- Retain grease at the bearing faces thus permitting an extended period of operation without having to re lubricate the roll.
- If the angular deflection limits are exceeded, the effect on ball bearings is less critical than for other bearing types.

Shell Ends

Roller Shell ends are manufactured on our premises from heavy gauge steel coil strip. They are concentric and correctly sized to suit the selected bearings





ROLLER CONSTRUCTION

Tube

Potroll conveyor tube is produced to PIM specification AS 1165. The tube is carefully rolled and electric resistance welded and drawn to ensure concentricity and that the weld is flush inside and out. Steel grade is minimum C250. Alternative grades can be supplied for special applications. Consult your PIM representative for further information.

Shell to Housing Bearing

Shell ends are attached to the tube by specially designed welding machines. These special purpose machines ensure that the shell tubing is clamped at the ends at all times during the welding process. Thereby ensuring that only minimum run-out high balance quality rolls are produced.

Sealing

All Potroll rollers incorporate multi-labyrinth sealing and while the details vary between idlers series, the basic principles of the system adopted by PIM and the attributes of the system are common to all rolls.
The grease filled multi-labyrinth seal prevents the ingress of contaminants in to the bearing cavity. In addition to the labyrinth seal, the outer seal has minimal clearance where the seal meets the shaft. This seal is further protected by an external weather seal.

An important point to look for in a labyrinth seal is its ability to prevent the ingress of foreign particles into the bearing area. Potroll have successfully achieved this.

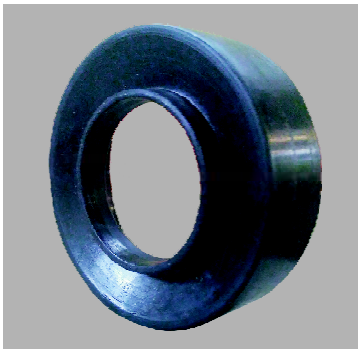
PIM seal components are manufactured from precision rolled steel coil. To ensure long life and resistance to corrosion all PIM rolls are assembled with galvanized outer seals.

The grease used is specially formulated for its lubricating and sealing properties. A range of special greases are also available for extreme hot or cold climatic conditions.

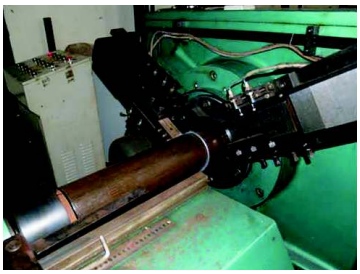
The PIM multi-labyrinth seal has been continuously refined to become the most effective seal in the business.

Shafts

A main cause of bearing failure is excessive shaft deflection. All rolls are designed to limit the extent of deflection to within the allowable limits of the bearing. Shaft diameters are selected for the idler assembly under full load operating conditions.

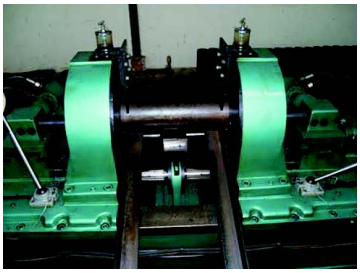


PRECISION PROCESS



PIPE CUTTING

Cutting pipe use machine of deep cutting, this machine have excess that is high accuration storey level, so that can optimal of cutting result, and pipe cutting use this machine do not generate diffraction at the cutting result.



FACING

Process of Facing using to smooth down result of cutting and to make position path of housing bearing so that earn well guarantedly straightness between two bearing housing. Besides this process also determine accuracy of length of roller, on that account this process also very determine to end result of roller.

WELDING

This process most determine in making of roller, because straightness installation of balance and shaft of roller ascertained from this process, on welding have to conducting at the same time to both of side. this process also have to paying attention for pipe extension so that at the time of rotary roller high- speedly extension free or not barst.

SHAFT CUTTING

Shaft cutting use machine of cutting wheel, this matter aim for control of careful measure.

2-SIDE GROOVING

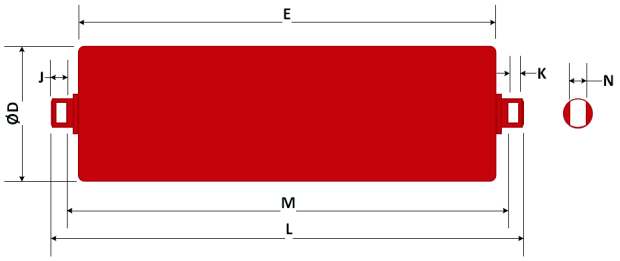
Making of roller shaft grooving use machine can quicken work and also same result in each shaft, so that work which yielding can well-balanced with work of pipe, if using manual grooving machine hence will happened heaping at work of pipe

ROLLER ASSEMBLY

From all production processes, assembling also have important role in making of roller, because when installation of part inner not true hence roller will not rotate better and will be make short life time of roller

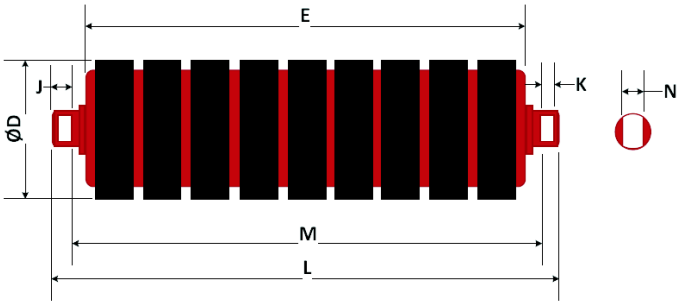
• Trough 3 Roll - 5°, 15°, 25°, 30°,35°, 45°

JIS STANDARD



TYPE	Belt Width	Ø D	Ø d	E	J	K	L	M	N	BEARING	WEIGHT (kg)
POT - 400 - CT	400	89.1	20	145	11	8	175	153	14	6204 ZZ	1.9
POT - 450 - CT	450	89.1	20	165	11	8	195	173	14	6204 ZZ	2.0
POT - 500 - CT	500	89.1	20	180	11	8	210	188	14	6204 ZZ	2.1
POT - 600 - CT	600	89.4	20	210	11	8	240	218	14	6204 ZZ	2.4
POT - 750 - CT	750	114.3	20	265	11	8	295	273	14	6204 ZZ	3.9
POT - 900 - CT	900	114.3	20	315	11	8	345	323	14	6204 ZZ	4.5
POT - 1050 - CT	1050	139.8	25	370	15	11	410	380	18	6205 ZZ	6.9
POT - 1200 - CT	1200	139.8	25	420	15	11	460	430	18	6205 ZZ	7.6
POT - 1400 - CT	1400	165.2	30	500	15	11	540	510	22	6206 ZZ	11.8
POT - 1600 - CT	1600	165.2	30	580	15	11	620	590	22	6206 ZZ	15.0
POT - 1800 - CT	1800	165.2	35	650	15	11	690	660	25	6207 ZZ	17.0
GRJ - 2000 - CT	2000	165.2	35	730	15	11	770	740	25	6207 ZZ	18.8

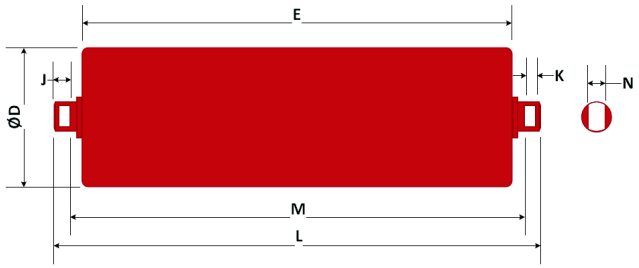
• Trough Impact 3 Roll - 30°, 35°, 45°



MODEL	BW	Ø D1	Ø D2	Ø d	E1	E2	J	K	L	M	N	BEARING	WEIGHT (kg)
POT - 400 - IT	400	89	60	20	145	135	11	8	175	153	14	6204 ZZ	2.2
POT - 450 - IT	450	89	60	20	165	155	11	8	195	173	14	6204 ZZ	2.4
POT - 500 - IT	500	89	60	20	180	170	11	8	210	188	14	6204 ZZ	2.5
POT - 600 - IT	600	89	60	20	210	200	11	8	240	218	14	6204 ZZ	2.8
POT - 750 - IT	750	114	89.1	20	265	255	11	8	295	273	14	6204 ZZ	3.8
POT - 900 - IT	900	114	89.1	20	315	305	11	8	345	323	14	6204 ZZ	4.4
POT - 1050 - IT	1050	139	114.3	25	370	360	15	11	410	380	18	6205 ZZ	7.3
POT - 1200 - IT	1200	139	114.3	25	420	410	15	11	460	430	18	6205 ZZ	8.2
POT - 1400 - IT	1400	165	114.3	30	500	490	15	11	540	510	22	6206 ZZ	13.3
POT - 1600 - IT	1600	165	114.3	30	580	570	15	11	620	590	22	6206 ZZ	15.1
POT - 1800 - IT	1800	165	114.3	35	650	640	15	11	690	660	25	6207 ZZ	18.5
POT - 2000 - IT	2000	165	114.3	35	730	720	15	11	770	740	25	6207 ZZ	20.5

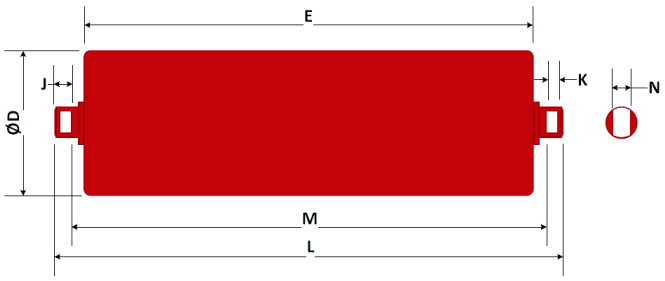
JIS STANDARD

• Return Single Roll - 0°



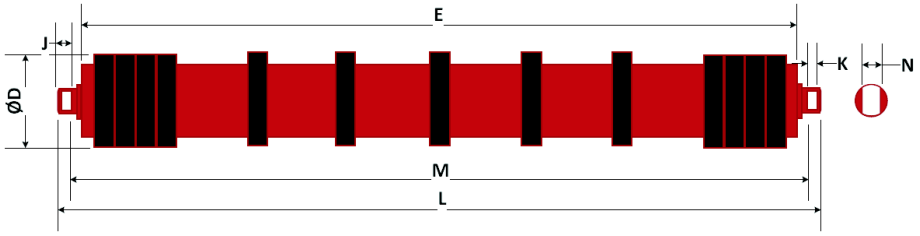
MODEL	BW	Ø D	Ø d	E	J	K	L	M	N	BEEARING	WEIGHT (kg)
POT - 400 - CF	400	89.1	20	460	11	8	502	480	14	6204 ZZ	4.4
POT - 450 - CF	450	89.1	20	510	11	8	552	530	14	6204 ZZ	4.8
POT - 500 - CF	500	89.1	20	560	11	8	602	580	14	6204 ZZ	5.3
POT - 600 - CF	600	89.4	20	660	11	8	702	680	14	6204 ZZ	6
POT - 750 - CF	750	114.3	20	850	11	8	902	880	14	6204 ZZ	10.7
POT - 900 - CF	900	114.3	20	1000	11	8	1052	1030	14	6204 ZZ	12.4
POT - 1050 - CF	1050	139.8	25	1150	15	11	1210	1180	18	6205 ZZ	18.6
POT - 1200 - CF	1200	139.8	25	1300	15	11	1360	1330	18	6205 ZZ	20.9
POT - 1400 - CF	1400	165.2	30	1530	15	11	1580	1550	22	6206 ZZ	32.6
POT - 1600 - CF	1600	165.2	30	1730	15	11	1780	1750	22	6206 ZZ	40.4
POT - 1800 - CF	1800	165.2	35	2000	15	11	2070	2040	25	6207 ZZ	47.2
POT - 2000 - CF	2000	165.2	35	2200	15	11	2270	2240	25	6207 ZZ	51.7

• V Return 2 Roll - 10°



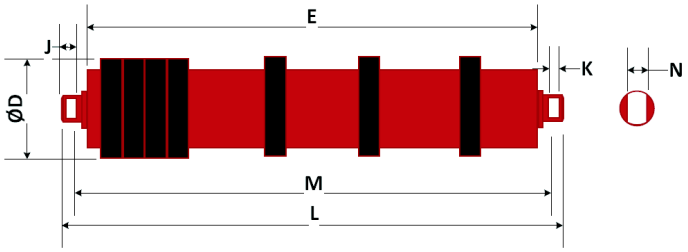
MODEL	Belt Width	Ø D	Ø d	E	J	K	L	M	N	BEARING	WEIGHT (kg)
POT - 400 - RV	400	89.1	20	225	11	8	255	233	14	6204 ZZ	2.2
POT - 450 - RV	450	89.1	20	250	11	8	280	258	14	6204 ZZ	2.4
POT - 500 - RV	500	89.1	20	275	11	8	305	283	14	6204 ZZ	2.6
POT - 600 - RV	600	89.4	20	325	11	8	355	333	14	6204 ZZ	3.1
POT - 750 - RV	750	114.3	20	415	11	8	445	423	14	6204 ZZ	5.3
POT - 900 - RV	900	114.3	20	490	11	8	520	498	14	6204 ZZ	6.5
POT - 1050 - RV	1050	139.8	25	565	15	11	605	575	18	6205 ZZ	10.3
POT - 1200 - RV	1200	139.8	25	640	15	11	680	650	18	6205 ZZ	11.4
POT - 1400 - RV	1400	165.2	30	750	15	11	790	760	22	6206 ZZ	17.1
POT - 1600 - RV	1600	165.2	30	860	15	11	890	860	22	6206 ZZ	19.1
POT - 1800 - RV	1800	165.2	35	980	15	11	1020	990	25	6207 ZZ	24.3
POT - 2000 - RV	2000	165.2	35	1080	15	11	1120	1090	25	6207 ZZ	26.5

• Rubber Disc Return Single Roll - 0°



MODEL	BW	Ø D1	Ø d	E1	E2	J	K	L	M	N	BEARING	WEIGHT (kg)
POT - 400 - RFD	400	89.1	20	460	450	11	8	502	480	14	6204ZZ	6.1
POT - 450 - RFD	450	89.1	20	510	500	11	8	552	530	14	6204ZZ	6.6
POT - 500 - RFD	500	89.1	20	560	550	11	8	602	580	14	6204ZZ	7.2
POT - 600 - RFD	600	89.4	20	660	650	11	8	702	680	14	6204ZZ	8.4
POT - 750 - RFD	750	114.3	20	850	840	11	8	902	880	14	6204ZZ	10.8
POT - 900 - RFD	900	114.3	20	1000	990	11	8	1052	1030	14	6204ZZ	11.6
POT - 1050 - RFD	1050	139.8	25	1150	1140	15	11	1210	1180	18	6205ZZ	12.3
POT - 1200 - RFD	1200	139.8	25	1300	1290	15	11	1360	1330	18	6205ZZ	12.9
POT - 1400 - RFD	1400	165.2	30	1530	1520	15	11	1580	1550	22	6206ZZ	18.6
POT - 1600 - RFD	1600	165.2	30	1730	1270	15	11	1780	1750	22	6206ZZ	21.0
POT - 1800 - RFD	1800	165.2	35	2000	1990	15	11	2070	2040	25	6207ZZ	26.6
POT - 2000 - RFD	2000	165.2	35	2200	2190	15	11	2270	2240	25	6207ZZ	29.0

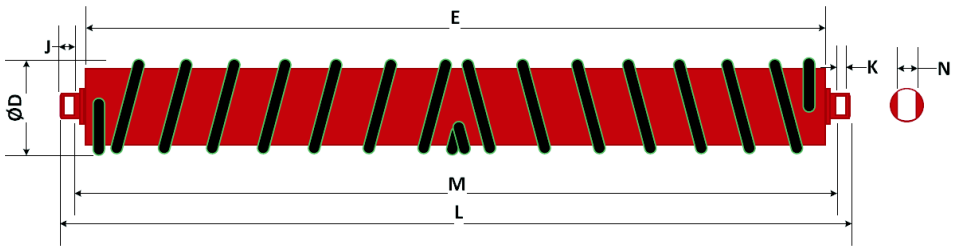
• V Rubber Disc Return 2 Roll - 10°



MODEL	BW	Ø D1	Ø D2	Ø d	E1	E2	J	K	L	M	N	BEARING	WEIGHT (kg)
POT - 400 - DV	400	89.1	60	20	460	450	11	8	502	480	14	6204ZZ	6.1
POT - 450 - DV	450	89.1	60	20	510	500	11	8	552	530	14	6204ZZ	6.6
POT - 500 - DV	500	89.1	60	20	560	550	11	8	602	580	14	6204ZZ	7.2
POT - 600 - DV	600	89.4	60	20	660	650	11	8	702	680	14	6204ZZ	8.4
POT - 750 - DV	750	114.3	89.1	20	850	840	11	8	902	880	14	6204ZZ	10.8
POT - 900 - DV	900	114.3	89.1	20	1000	990	11	8	1052	1030	14	6204ZZ	11.6
POT - 1050 - DV	1050	139.8	114.3	25	1150	1140	15	11	1210	1180	18	6205ZZ	12.3
POT - 1200 - DV	1200	139.8	114.3	25	1300	1290	15	11	1360	1330	18	6205ZZ	12.9
POT - 1400 - DV	1400	165.2	114.3	30	1530	1520	15	11	1580	1550	22	6206ZZ	18.6
POT - 1600 - DV	1600	165.2	114.3	30	1730	1720	15	11	1780	1750	22	6206ZZ	21.0
POT - 1800 - DV	1800	165.2	114.3	35	2000	1990	15	11	2070	2040	25	6207ZZ	26.6
POT - 2000 - DV	2000	165.2	114.3	35	2200	2190	15	11	2270	2240	25	6207ZZ	29.0

JIS STANDARD

• Spiral Return Single Roll - 0°



MODEL	BW	Ø D1	Ø d	E1	E2	J	K	L	M	N	BEARING	WEIGHT (kg)
POT - 400 - RFD	400	89.1	20	460	450	11	8	502	480	14	6204 ZZ	6.1
POT - 450 - RFD	450	89.1	20	510	500	11	8	552	530	14	6204 ZZ	6.6
POT - 500 - RFD	500	89.1	20	560	550	11	8	602	580	14	6204 ZZ	7.2
POT - 600 - RFD	600	89.4	20	660	650	11	8	702	680	14	6204 ZZ	8.4
POT - 750 - RFD	750	114.3	20	850	840	11	8	902	880	14	6204 ZZ	10.8
POT - 900 - RFD	900	114.3	20	1000	990	11	8	1052	1030	14	6204 ZZ	11.6
POT - 1050 - RFD	1050	139.8	25	1150	1140	15	11	1210	1180	18	6205 ZZ	12.3
POT - 1200 - RFD	1200	139.8	25	1300	1290	15	11	1360	1330	18	6205 ZZ	12.9
POT - 1400 - RFD	1400	165.2	30	1530	1520	15	11	1580	1550	22	6206 ZZ	18.6
POT - 1600 - RFD	1600	165.2	30	1730	1270	15	11	1780	1750	22	6206 ZZ	21.0
POT - 1800 - RFD	1800	165.2	35	2000	1990	15	11	2070	2040	25	6207 ZZ	26.6
POT - 2000 - RFD	2000	165.2	35	2200	2190	15	11	2270	2240	25	6207 ZZ	29.0

BRACKET DIMENSION

CARRY POSITION

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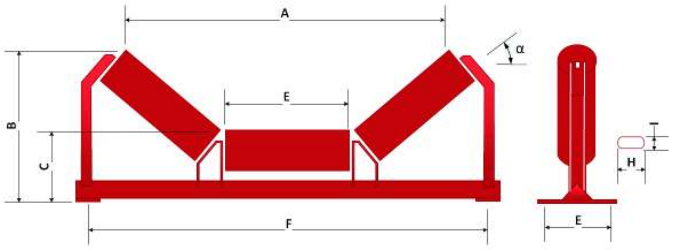
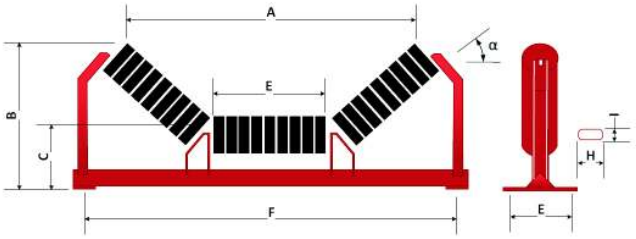
• 3 Carry Roll - 20°, 30°,35°, 45°

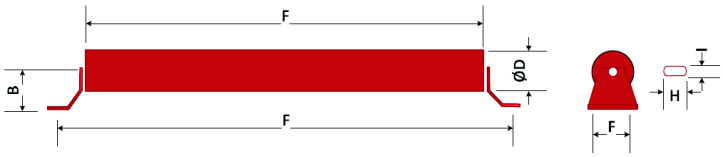


• 3 Impact Roll - 20°, 30°,35°, 45°

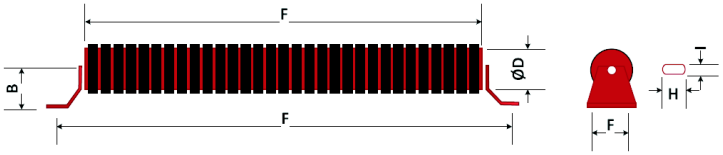


MODEL	BW	α = 20°		α = 30°		α = 35°		α = 45°		C	Ø	E	F	G	H	I
		A	B	A	B	A	B	A	B		D					
POT - 400 - CT	400	457	223	417	250	394	260	381	280	175	89.1	145	640	140	25	15
POT - 450 - CT	450	515	230	472	260	447	272	430	294	175	89.1	165	690	140	25	15
POT - 500 - CT	500	558	235	531	268	487	280	466	305	175	89.1	180	740	140	25	15
POT - 600 - CT	600	644	260	595	298	566	312	538	341	175	89.4	210	840	150	25	15
POT - 750 - CT	750	797	301	756	344	721	363	677	399	208	114.3	265	1040	160	25	15
POT - 900 - CT	900	941	318	893	369	852	392	798	434	208	114.3	315	1190	160	25	15
POT - 1050 - CT	1050	1114	381	1053	441	1005	467	934	516	250	139.8	370	1340	180	25	15
POT - 1200 - CT	1200	1258	398	1189	466	1137	495	1054	551	250	139.8	420	1490	180	25	15
POT - 1400 - CT	1400	1490	508	1414	589	1351	625	1246	691	333	165.2	500	1730	280	32	19
POT - 1600 - CT	1600	1720	535	1632	629	1562	671	1439	747	333	165.2	580	1930	280	32	19
POT - 1800 - CT	1800	1922	589	1823	694	1747	741	1633	834	363	165.2	650	2220	330	32	19
POT - 2000 - CT	2000	2152	617	2042	734	1958	787	1826	890	363	165.2	730	2420	330	32	19

• 1 Singel Roll - 0°



• 1 Singel Impact Roll - 0°



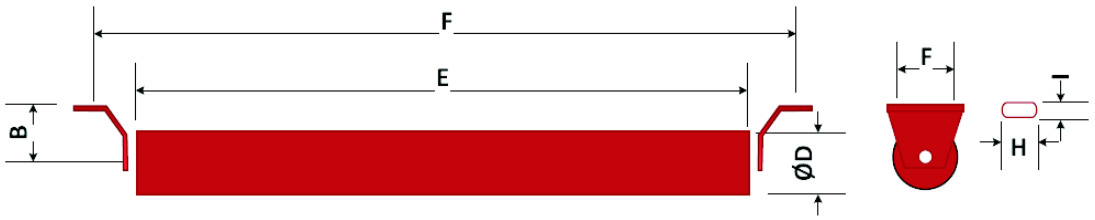
MODEL	BW	B	Ø D	E	F	G	H	I
POT - 400 - CF	400	110	89.1	460	640	140	25	15
POT - 450 - CF	450	110	89.1	510	690	140	25	15
POT - 500 - CF	500	110	89.1	560	740	140	25	15
POT - 600 - CF	600	110	89.4	660	840	150	25	15
POT - 750 - CF	750	110	114.3	850	1040	160	25	15
POT - 900 - CF	900	110	114.3	1000	1190	160	25	15
POT - 1050 - CF	1050	130	139.8	1150	1340	180	25	15
POT - 1200 - CF	1200	130	139.8	1300	1490	180	25	15
POT - 1400 - CF	1400	160	165.2	1530	1730	280	32	19
POT - 1600 - CF	1600	160	165.2	1730	1930	280	32	19
POT - 1800 - CF	1800	160	165.2	2000	2220	330	32	19
POT - 2000 - CF	2000	160	165.2	2200	2420	330	32	19

BRACKET DIMENSION

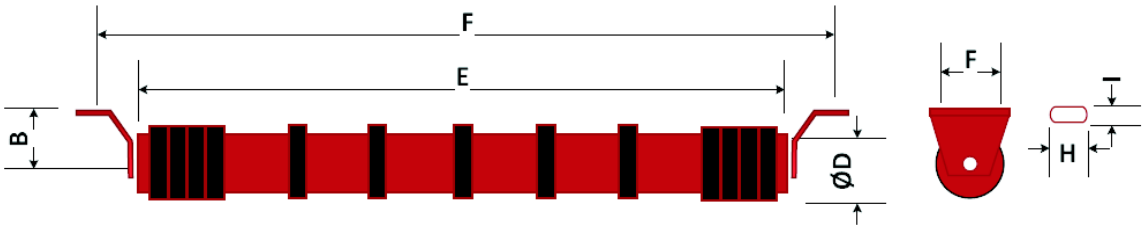
RETURN POSITION

JIS STANDARD

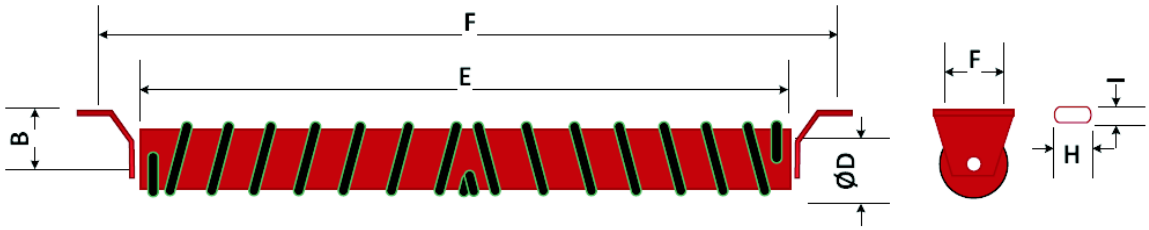
- **Single Roll - 0°**



- **Rubber Disc Single Roll - 0°**



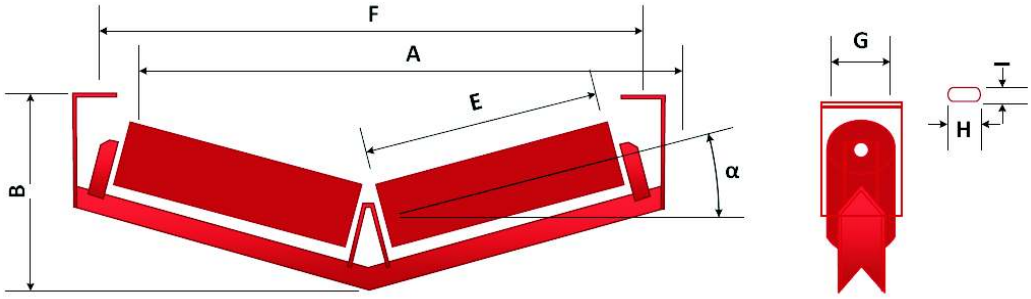
- **Spiral Single Roll - 0°**



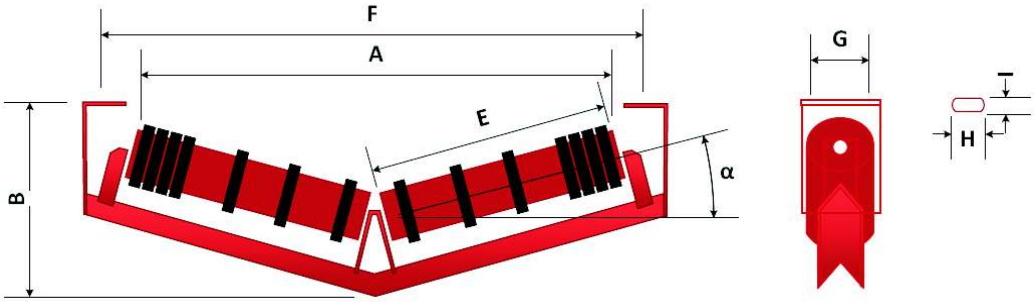
MODEL	BW	B	Ø D	E	F	G	H	I
POT - 400 - RF	400	110	89.1	460	640	140	25	15
POT - 450 - RF	450	110	89.1	510	690	140	25	15
POT - 500 - RF	500	110	89.1	560	740	140	25	15
POT - 600 - RF	600	110	89.4	660	840	150	25	15
POT - 750 - RF	750	110	114.3	850	1040	160	25	15
POT - 900 - RF	900	110	114.3	1000	1190	160	25	15
POT - 1050 - RF	1050	130	139.8	1150	1340	180	25	15
POT - 1200 - RF	1200	130	139.8	1300	1490	180	25	15
POT - 1400 - RF	1400	160	165.2	1530	1730	280	32	19
POT - 1600 - RF	1600	160	165.2	1730	1930	280	32	19
POT - 1800 - RF	1800	160	165.2	2000	2220	330	32	19
POT - 2000 - RF	2000	160	165.2	2200	2420	330	32	19

JIS STANDARD

• 2 Roll - 10°



• 2 Impact Roll - 10°



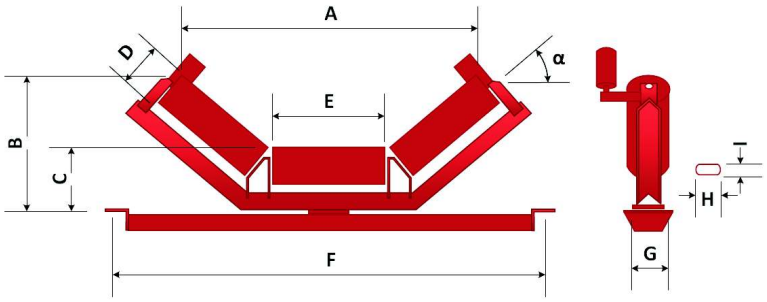
MODEL	BW	α = 10°		C	Ø D	E	F	G	H	I
		A	B							
POT - 400 - RV	400	489	184	151	89.1	225	640	140	25	15
POT - 450 - RV	450	539	187	151	89.1	250	690	140	25	15
POT - 500 - RV	500	589	191	151	89.1	275	740	140	25	15
POT - 600 - RV	600	688	197	151	89.4	325	840	150	25	15
POT - 750 - RV	750	873	240	183	114.3	415	1040	160	25	15
POT - 900 - RV	900	1022	256	190	114.3	490	1190	160	25	15
POT - 1050 - RV	1050	1178	290	215	139.8	565	1340	180	25	15
POT - 1200 - RV	1200	1327	311	225	139.8	640	1490	180	25	15
POT - 1400 - RV	1400	1542	360	261	165.2	750	1730	280	32	19
POT - 1600 - RV	1600	1760	395	282	165.2	860	1930	280	32	19
POT - 1800 - RV	1800	1999	409	282	165.2	980	2220	330	32	19
POT - 2000 - RV	2000	2197	423	283	165.2	1080	2420	330	32	19

BRACKET DIMENSION

SELF ALIGNING

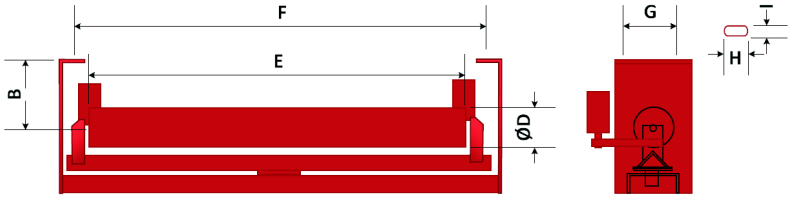
• 3 Carry Roll - 20°, 30°, 35°, 45°

JIS STANDARD



MODEL	BW	α = 20°		α = 30°		α = 35°		α = 45°		C	Ø	E	F	G	H	I
		A	B	A	B	A	B	A	B		D					
POT - 400 - CT	400	457	223	417	250	394	260	381	280	175	89.1	145	640	140	25	15
POT - 450 - CT	450	515	230	472	260	447	272	430	294	175	89.1	165	690	140	25	15
POT - 500 - CT	500	558	235	531	268	487	280	466	305	175	89.1	180	740	140	25	15
POT - 600 - CT	600	644	260	595	298	566	312	538	341	175	89.4	210	840	150	25	15
POT - 750 - CT	750	797	301	756	344	721	363	677	399	208	114.3	265	1040	160	25	15
POT - 900 - CT	900	941	318	893	369	852	392	798	434	208	114.3	315	1190	160	25	15
POT - 1050 - CT	1050	1114	381	1053	441	1005	467	934	516	250	139.8	370	1340	180	25	15
POT - 1200 - CT	1200	1258	398	1189	466	1137	495	1054	551	250	139.8	420	1490	180	25	15
POT - 1400 - CT	1400	1490	508	1414	589	1351	625	1246	691	333	165.2	500	1730	280	32	19
POT - 1600 - CT	1600	1720	535	1632	629	1562	671	1439	747	333	165.2	580	1930	280	32	19
POT - 1800 - CT	1800	1922	589	1823	694	1747	741	1633	834	363	165.2	650	2220	330	32	19
POT - 2000 - CT	2000	2152	617	2042	734	1958	787	1826	890	363	165.2	730	2420	330	32	19

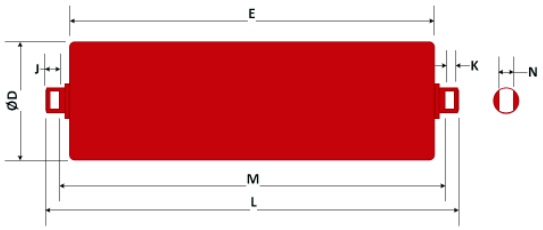
• 1 Return Roll - 0°



MODEL	BW	B	Ø D	E	F	G	H	I
POT - 400 - CF	400	110	89.1	460	640	140	25	15
POT - 450 - CF	450	110	89.1	510	690	140	25	15
POT - 500 - CF	500	110	89.1	560	740	140	25	15
POT - 600 - CF	600	110	89.4	660	840	150	25	15
POT - 750 - CF	750	110	114.3	850	1040	160	25	15
POT - 900 - CF	900	110	114.3	1000	1190	160	25	15
POT - 1050 - CF	1050	130	139.8	1150	1340	180	25	15
POT - 1200 - CF	1200	130	139.8	1300	1490	180	25	15
POT - 1400 - CF	1400	160	165.2	1530	1730	280	32	19
POT - 1600 - CF	1600	160	165.2	1730	1930	280	32	19
POT - 1800 - CF	1800	160	165.2	2000	2220	330	32	19
POT - 2000 - CF	2000	160	165.2	2200	2420	330	32	19

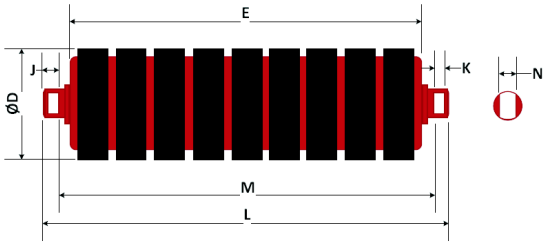
• Trough 3 Roll - 5°, 15°, 25°, 30°, 35°, 45°

DIN, CEMA STANDARD



MODEL	BW	Ø D	Ø d	E	K	L	M	N	BEARING
POT - 300 - CF	300	60	20	388	9	414	396	14	6204 ZZ
POT - 400 - CF	400	60	20	508	9	534	516	14	6204 ZZ
POT - 500 - CF	500	89	20	608	9	634	616	14	6204 ZZ
POT - 650 - CF	650	89	20	758	9	784	766	14	6204 ZZ
POT - 800 - CF	800	108	20	958	9	984	966	14	6204 ZZ
POT - 1000 - CF	1000	108	20	1158	9	1190	1166	14	6204 ZZ
POT - 1200 - CF	1200	133	25	1408	12	1440	1416	18	6205 ZZ
POT - 1400 - CF	1400	133	25	1608	12	1640	1616	18	6205 ZZ
POT - 1600 - CF	1600	139	30	1808	12	1840	1816	22	6206 ZZ
POT - 1800 - CF	1800	139	30	2008	12	2040	2016	22	6206 ZZ
POT - 2000 - CF	2000	159	35	2208	12	2240	2216	28	6207 ZZ
POT - 2200 - CF	2200	159	35	2408	12	2440	2416	28	6207 ZZ

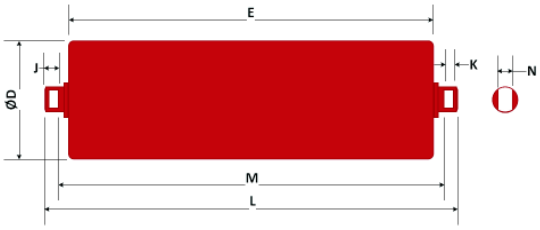
• Impact 3 Roll - 5°, 15°, 25°, 30°, 35°, 45°

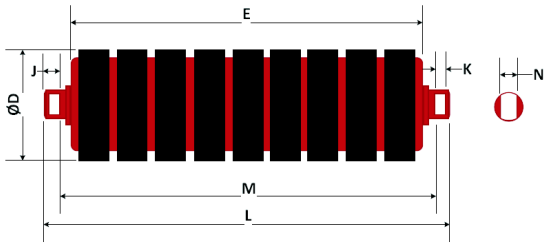


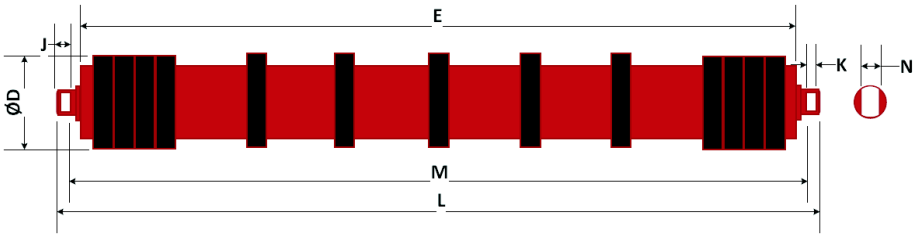
MODEL	BW	Ø D1	Ø D2	Ø d	E1	E2	K	L	M	N	BEEARING
POT - 300 - IT	300	89	60	20	126	116	9	152	134	14	6204 ZZ
POT - 400 - IT	400	89	60	20	168	158	9	194	176	14	6204 ZZ
POT - 500 - IT	500	89	60	20	208	198	9	234	216	14	6204 ZZ
POT - 650 - IT	650	89	60	20	258	248	9	284	266	14	6204 ZZ
POT - 800 - IT	800	108	89	20	323	313	9	349	331	14	6204 ZZ
POT - 1000 - IT	1000	108	89	20	388	378	9	420	396	14	6204 ZZ
POT - 1200 - IT	1200	133	108	25	473	463	12	505	481	18	6205 ZZ
POT - 1400 - IT	1400	133	108	25	538	528	12	570	546	18	6205 ZZ
POT - 1600 - IT	1600	139	108	30	608	598	12	640	616	22	6206 ZZ
POT - 1800 - IT	1800	139	108	30	678	668	12	710	686	22	6206 ZZ
POT - 2000 - IT	2000	159	108	35	758	748	12	790	766	28	6207 ZZ
POT - 2200 - IT	2200	159	108	35	808	798	12	840	816	28	6207 ZZ

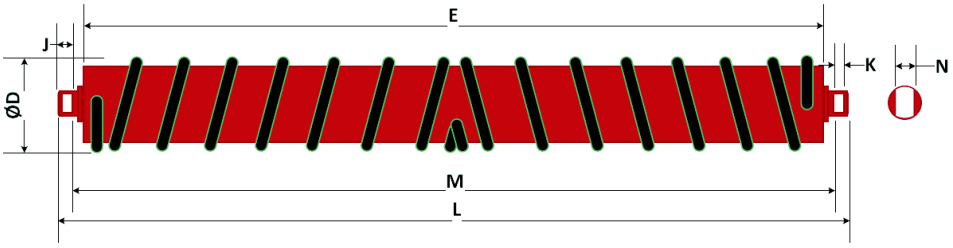
• Single Roll - 0°

DIN, CEMA STANDARD





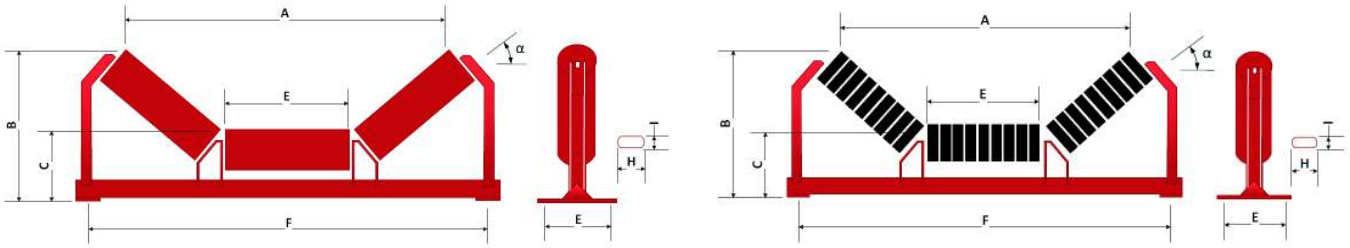




MODEL	BW	Ø D	Ø d	E	K	L	M	N	BEARING
POT - 300 - RF	300	60	20	388	9	414	396	14	6204 ZZ
POT - 400 - RF	400	60	20	508	9	534	516	14	6204 ZZ
POT - 500 - RF	500	89	20	608	9	634	616	14	6204 ZZ
POT - 650 - RF	650	89	20	758	9	784	766	14	6204 ZZ
POT - 800 - RF	800	108	20	958	9	984	966	14	6204 ZZ
POT - 1000 - RF	1000	108	20	1158	9	1190	1166	14	6204 ZZ
POT - 1200 - RF	1200	133	25	1408	12	1440	1416	18	6205 ZZ
POT - 1400 - RF	1400	133	25	1608	12	1640	1616	18	6205 ZZ
POT - 1600 - RF	1600	139	30	1808	12	1840	1816	22	6206 ZZ
POT - 1800 - RF	1800	139	30	2008	12	2040	2016	22	6206 ZZ
POT - 2000 - RF	2000	159	35	2208	12	2240	2216	28	6207 ZZ
POT - 2200 - RF	2200	159	35	2408	12	2440	2416	28	6207 ZZ

• Trough 3 Roll - 30°, 35°, 45°

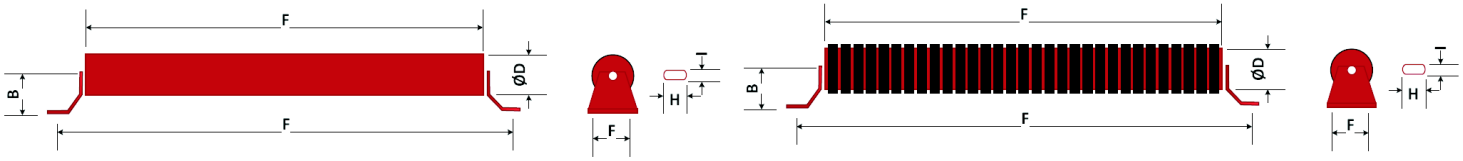
DIN, CEMA STANDARD



MODEL	BW	B			C	Ø D	E	F	G	H	I
		α= 30°	α = 35°	α = 45°							
POT - 300 - CT	300	260	298	336	125	60	126	540	60	30	17.5
POT - 400 - CT	400	267	303	339	125	60	168	640	60	30	17.5
POT - 500 - CT	500	292	335	378	135	89	208	740	60	30	17.5
POT - 650 - CT	650	317	365	413	135	89	258	890	60	30	17.5
POT - 800 - CT	800	354	407	460	140	108	323	1090	60	30	17.5
POT - 1000 - CT	1000	387	444	501	140	108	388	1290	60	30	17.5
POT - 1200 - CT	1200	429	493	557	155	133	473	1540	60	30	17.5
POT - 1400 - CT	1400	455	546	637	155	133	538	1740	60	30	17.5
POT - 1600 - CT	1600	538	586	634	178	139	608	1940	60	30	17.5
POT - 1800 - CT	1800	615	633	651	178	139	678	2190	60	30	17.5
POT - 2000 - CT	2000	687	803	919	277	159	758	2420	60	30	17.5
POT - 2200 - CT	2200	725	832	939	277	159	808	2620	60	30	17.5

• 1 Singel Roll - 0°

• 1 Singel Impact Roll - 0°



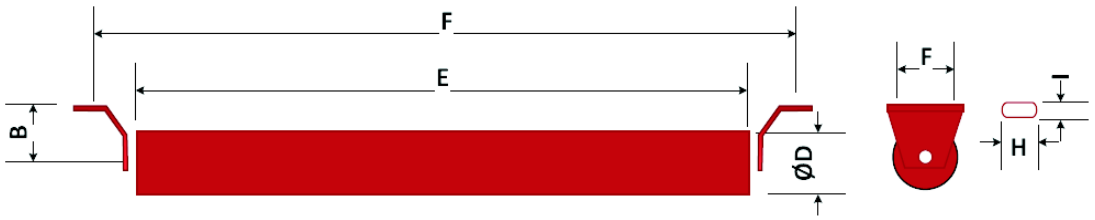
MODEL	BW	B	Ø D	E	F	G	H	I
POT- 300 - CF	300	70	60	388	520	60	30	17.5
POT - 400 - CF	400	70	60	508	640	60	30	17.5
POT - 500 - CF	500	70	89	608	740	60	30	17.5
POT - 650 - CF	650	70	89	758	890	60	30	17.5
POT - 800 - CF	800	100	108	958	1090	60	30	17.5
POT - 1000 - CF	1000	100	108	1158	1290	60	30	17.5
POT - 1200 - CF	1200	100	133	1408	1540	60	30	17.5
POT - 1400 - CF	1400	100	133	1608	1740	60	30	17.5
POT - 1600 - CF	1600	100	139	1808	1940	60	30	17.5
POT - 1800 - CF	1800	100	139	2008	2140	60	30	17.5
POT - 2000 - CF	2000	100	159	2208	2340	60	30	17.5
POT - 2200 - CF	2200	100	159	2408	2540	60	30	17.5

BRACKET DIMENSION

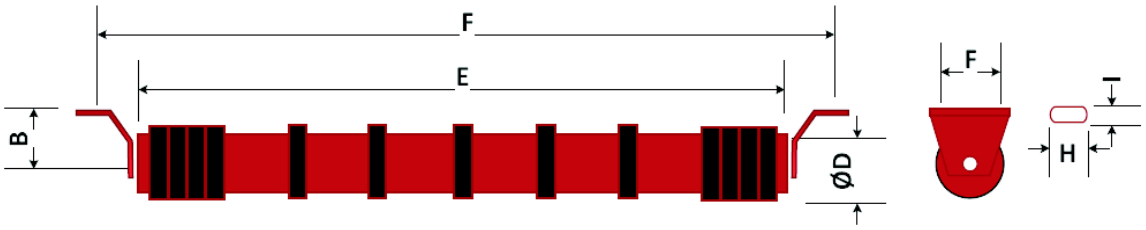
RETURN POSITION

DIN, CEMA STANDARD

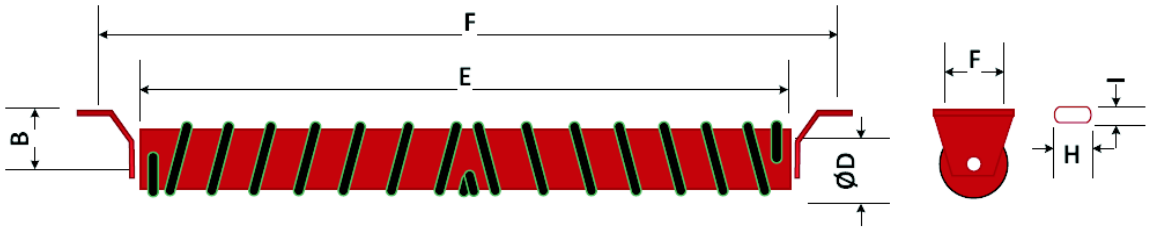
- **Single Roll - 0°**



- **Rubber Disc Single Roll - 0°**



- **Spiral Single Roll - 0°**



MODEL	BW	B	Ø D	E	F	G	H	I
POT - 300 - RF	300	70	60	388	520	60	30	17.5
POT - 400 - RF	400	70	60	508	640	60	30	17.5
POT - 500 - RF	500	70	89	608	740	60	30	17.5
POT - 650 - RF	650	70	89	758	890	60	30	17.5
POT - 800 - RF	800	100	108	958	1090	60	30	17.5
POT - 1000 - RF	1000	100	108	1158	1290	60	30	17.5
POT - 1200 - RF	1200	100	133	1408	1540	60	30	17.5
POT - 1400 - RF	1400	100	133	1608	1740	60	30	17.5
POT - 1600 - RF	1600	100	139	1808	1940	60	30	17.5
POT - 1800 - RF	1800	100	139	2008	2140	60	30	17.5
POT - 2000 - RF	2000	100	159	2208	2340	60	30	17.5
POT - 2200 - RF	2200	100	159	2408	2540	60	30	17.5

Standard Heavy Duty Drum Pulleys

Conveyor pulleys are designed for use on belt conveyor systems as a means to drive, redirect, provide tension to, or help track the conveyor belt. Conveyor pulleys are not designed for the same application intent as conveyor rollers. Conveyor rollers are designed to be used in the bed of a conveyor as a support for the conveyed product and often under the conveyor bed in the return section to support the return side of the conveyor belt.

Benefits

- Meets or exceeds CEMA/ANSI specifications
- Exclusive One Piece Rolled in Crown in all sizes help to ensure consistent, proper belt tracking stronger pulley withtighter tolerances Construction
- Full depth weld with reinforcing bar on singlelongitudinal seam featured on each Potech Heavy Duty Drum \ Style Conveyor Pulley
- Crown face pulleys are furnished standard, flat facemust be specified
- Potech hubs feature full depth welds on the inside andoutside of pulley end disk decreasing the likelihood of end disk failure due to shaft deflection and shock loads

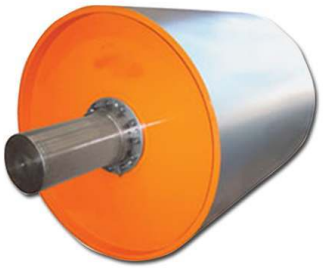
Options

- Hot and Cold Vulcanized Pulley Lagging
- Shafting
- Bearing Assemblies
- Take-Up Systems
- Stainless steel construction available
- Machined face pulleys for close tolerance and better belt tracking

Pulley Model

PULLEY WITH LAGGING

PULLEY WITHOUT LAGGING

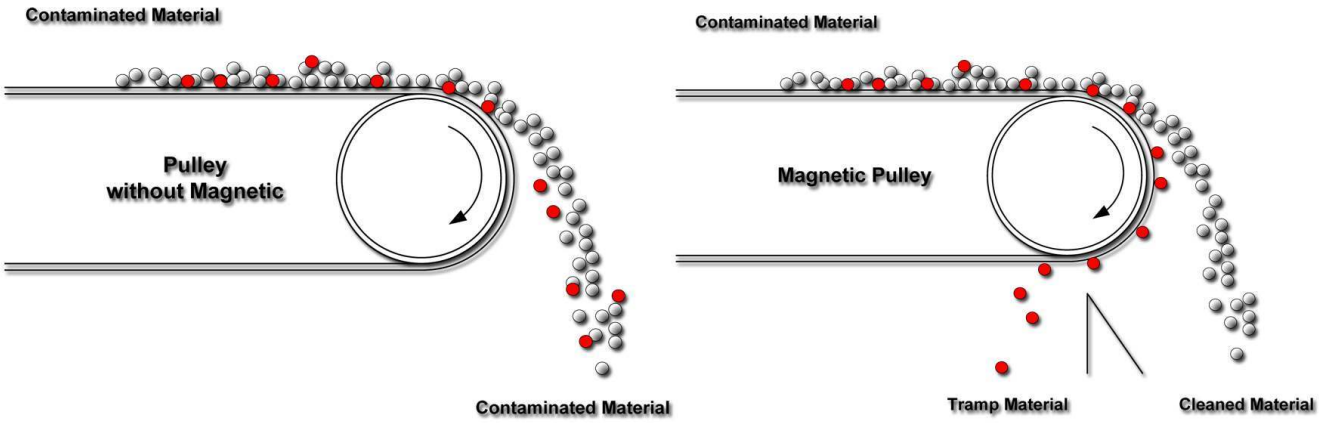


WING PULLEY

Head Pulley With Permanent Magnetic

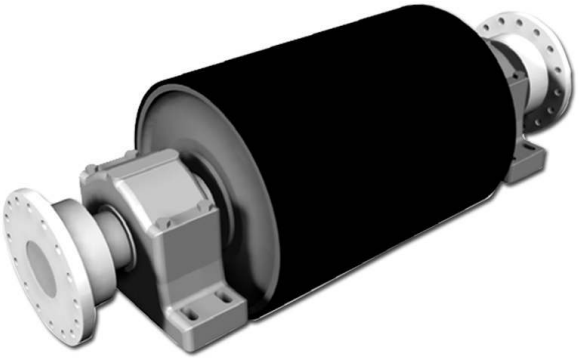
HOW IT WORK

Magnetic Pulleys are widely used as head pulleys in belt conveyors for continuous automatic removal of damaging tramp iron from a variety of materials. When material is carried on a conveyor enter the magnetic field of the pulley, the ferrous particles are attracted to the belt. They are then held magnetically and carried to the underside of the pulley to get dislodged from the belt. Iron separation is automatic and continuous. The cleaned non-magnetic product is discharged normally over the pulley in vertical drop.



BENEFITS

- Meets or exceeds CEMA/ANSI specifications
- Exclusive One Piece Rolled in Crown ensures consistent, proper belt tracking and tighter tolerances
- Automatically turns any conveyor into a magnetic separator
- Reduce operating expenses:
  > Remove potentially harmful tramp ferrous metal before it damages expensive processing equipment
  > Discharges tramp metal away from the normal product flow, improves product purity
- Permanent magnets operate without electric power supply
- Lifetime warranty on the performance of the magnetic field



RUBBER LAGGING

Rubber Conveyor Pulley Lagging delivers increased traction and pulley life over non lagged pulleys. Increased traction between the pulley face and the belt bottom covers reduces belt slippage and helps to improve belt tracking. Vulcanized rubber lagging protects the pulley's face from wear and extends pulley service life.

- As much as 50% increase in coefficient of friction over non lagged pulleys
- Improves Belt Tracking
- Protects pulley face from wear and extends pulley service life
- Herringbone and Diamond Grooves shed water and dirt promoting a self-cleaning effect

RUBBER LAGGING PATERN

HERRINGBONE GROOVE LAGGING

The style of lagging required is usually influenced by operating conditions. In thisTractor style grooving, the points do not meet in the middle. This is normally usedin drive pulleys.

CHEVRON GROOVE LAGGING

Some prefer having the points meet, as done in Chevron. This is also usedprimarily on drive pulleys.

DIAMOND GROOVE LAGGING

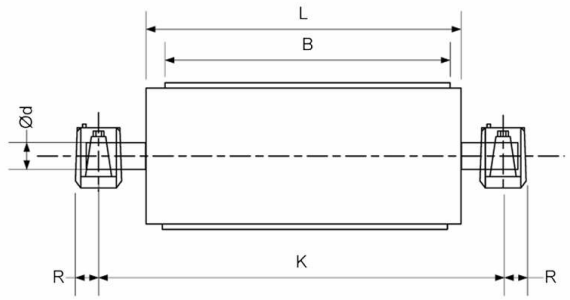
Diamond, or double HBG is primarily, used for reversing conveyor drive pulleys.It is also often used for spare pulleys when one doesn't know the direction ofrotation.

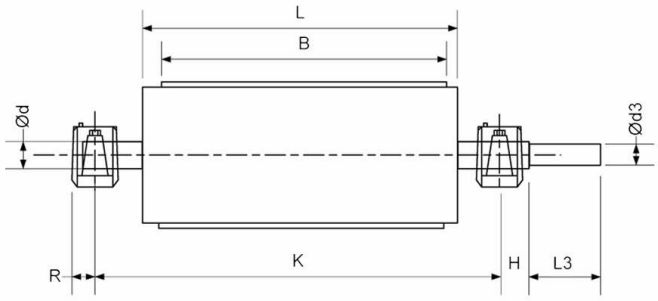
CERAMIC LAGGING

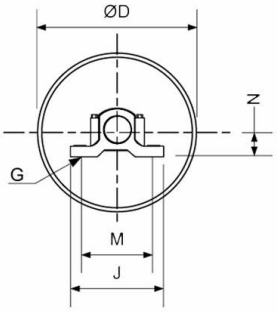
Ceramic Pulley Lagging delivers substantially increased traction over conventional pulley lagging. Durable ceramic tiles last longer than standard rubber lagging resulting in a dramatic reduction in the number of times the pulley must be changed over the life of the conveyor system.

- As much as twice the coefficient of friction over non lagged pulleys
- As much as 50% higher coefficient of friction over standard rubber lagging
- Virtually eliminates belt slippage
- Lower belt tension and less take-up weight increases life of components and belt
- Improves belt tracking
- Easily sheds water and dirt

Pulley Dimension

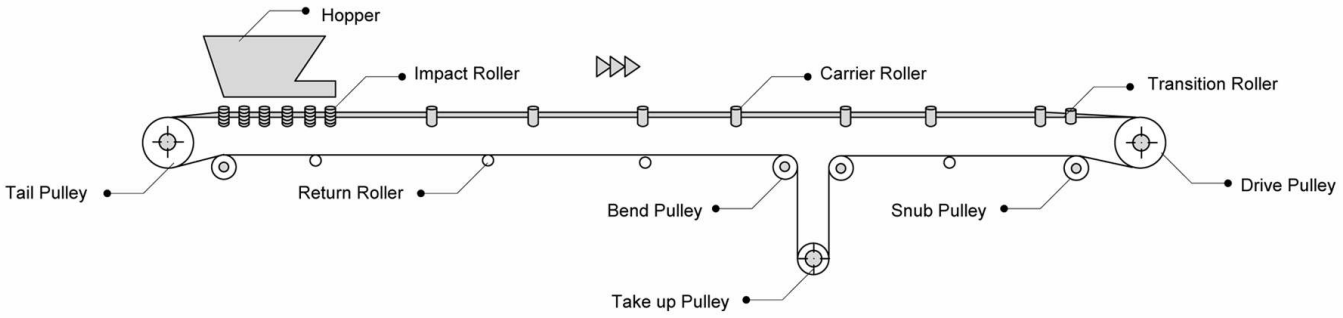






DL,BL d	K	H	R	J	M	N	G	Bearing House (SKF Type)	Bearing
40	L+180	50	43	170	205	60	M12	SNL 509	22209EK
50	L+180	55	48	210	255	70	M16	SNL 511	22211EK
60	L+180	60	55	230	275	80	M16	SNL 513	22213EK
70	L+180	70	60	260	315	95	M20	SNL 516	22216EK
80	L+190	75	70	290	345	100	M20	SNL 518	22218EK
90	L+200	85	80	320	380	112	M24	SNL 520	22220EK
100	L+210	95	88	350	410	125	M24	SNL 522	22222EK
110	L+230	100	93	350	410	140	M24	SNL 524	22224EK
115	L+240	105	95	380	445	150	M24	SNL 526	22226EK
125	L+250	110	103	420	500	150	M30	SNL 528	22228CCK
135	L+270	115	110	450	530	160	M30	SNL 530	22230CCK
140	L+280	125	118	470	550	170	M30	SNL 532	22232CCK

Pulley Shaft d	D	BL L B								DL Extra Weight
		600 500	750 650	950 800	1150 1000	1400 1200	1600 1400	1800 1600	2000 1800	2200 2000	
40	270	60	71	86	100	118	132	147	161	175	1
	320	73	86	103	120	142	159	177	194	212	
	400	88	104	124	144	169	190	210	230	251	
	500	119	140	168	194	228	256	283	311	338	
	630	154	179	212	312	368	413	458	503	549	
50	270	73	85	101	116	136	152	167	183	199	2
	320	87	102	120	139	162	181	200	218	237	
	400	106	123	145	166	193	215	236	258	280	
	500	143	164	193	221	257	286	315	343	372	
	630	185	212	246	347	404	451	497	544	590	
60	320	105	120	141	161	186	206	227	247	267	4
	400	127	145	169	191	220	243	267	290	313	
	500	169	192	222	252	289	320	350	380	411	
	630	220	247	283	385	445	493	541	589	637	
	800	302	336	381	509	583	643	702	762	822	
70	320	126	143	165	187	215	237	259	281	303	6
	400	152	171	196	221	252	277	303	328	353	
	500	198	223	255	286	326	359	391	423	455	
	630	258	287	325	428	490	540	590	640	690	
	800	355	390	436	566	642	704	765	827	889	
80	320	145	163	187	212	242	266	290	315	339	9
	400	171	192	219	246	279	307	334	361	388	
	500	217	243	277	311	354	389	422	456	491	
	630	277	307	347	452	517	569	621	673	725	
	800	374	410	459	590	669	733	797	860	924	
	1000	510	555	613	775	871	949	1026	1104	1181	
90	320	169	189	216	242	275	302	329	355	382	13
	400	195	218	247	276	313	343	372	402	431	
	500	241	269	306	342	387	424	460	497	534	
	630	301	333	376	483	550	605	659	714	768	
	800	398	437	487	621	703	769	835	901	967	
	1000	535	581	641	806	905	985	1065	1144	1224	
100	400	229	255	290	325	368	404	438	474	509	17
	500	275	307	349	390	443	485	527	569	611	
	630	335	371	419	531	606	666	725	785	845	
	800	432	474	530	670	758	830	901	973	1044	
	1000	568	619	685	855	960	1046	1131	1216	1301	
110	400	249	275	310	345	388	423	458	493	528	23
	500	295	327	369	410	463	505	547	589	631	
	630	354	391	439	551	626	686	745	805	865	
	800	451	494	550	689	778	850	921	993	1064	
	1000	588	639	705	875	980	1066	1151	1236	1321	
115	400	297	326	364	402	449	487	525	563	602	27
	500	343	377	423	467	532	568	614	659	704	
	630	403	442	493	608	686	749	812	875	938	
	800	500	545	604	746	839	914	988	1063	1137	
	1000	637	689	758	932	1041	1129	1218	1306	1394	
125	400	346	378	419	460	512	553	595	636	678	36
	500	393	429	478	526	586	634	683	731	780	
	630	452	493	548	667	749	815	882	948	1014	
	800	549	597	659	805	902	980	1057	1135	1213	
	1000	686	741	814	990	1104	1195	1287	1379	1470	
135	400	405	439	484	528	584	629	674	720	765	41
	500	451	490	542	594	659	711	763	815	869	
	630	511	555	612	735	822	892	961	1031	1101	
	800	608	658	724	873	974	1056	1137	1219	1300	
	1000	745	802	878	1058	1177	1272	1369	1462	1557	
140	400	441	478	527	575	636	685	734	783	831	48
	500	487	530	585	641	710	766	822	878	934	
	630	547	594	655	782	873	947	1021	1094	1168	
	800	644	697	767	920	1026	1111	1196	1282	1367	
	1000	781	841	921	1105	1228	1327	1426	1525	1624	



Drive pulley

The shell face of the conventional drivepulley or the motorised drum may be left asnormal finish or clad in rubber of a thicknesscalculated knowing the power to betransmitted.The cladding may be grooved asherringbone design ; or horizontal groovesto the direction of travel ; or diamondgrooves ; all designed to increase thecoefficient of friction and to facilitate therelease of water from the drum surface.The drum diameter is dimensionedaccording to the class and type of belt andto the designed pressures on its surface.

Return pulleys

The shell face does not necessarily need tobe clad except in certain cases, and thediameter is normally less than that designedfor the drive pulley.

Deflection or snub pulleys

These are used to increase the angle ofwrap of the belt and overall for all thenecessary changes in belt direction in theareas of counterweight tensioner, mobileunloader etc..

Tension units

The force necessary to maintain the beltcontact to the drive pulley is provided by a tension unit which may be a screw typeunit, a counterweight or a motorised winchunit. The counterweight provides a constanttensional force to the belt independent ofthe conditions. Its weight designed accor-ding to the minimum limits necessary toguar-antee the belt pull and to avoid unne-cessary belt stretch.

The designed movement of thecounterweight tension unit is derived fromthe elasticity of the belt during its vari-ousphases of operation as a conveyor.The minimum movement of a tension unitmust not be less than 2% of the distancebetween the centres of the conveyor usingtextile woven belts, or 0.5% of the conveyorusing steel corded belts.

POTROLL is a company that specializes in conveyor systems, especially in the manufacture of rollers, which has recognized the reliability of its products in the world of mining, fertilizer, pulp and paper as well as quarry.

Quality roller that we produce is very good, this can be achieved because we are supported by the work machine using the technology Germany. and with strict quality control quality from procurement to finished goods.

Basic standards Our products use standard CEMA but we also manufacture rollers using DIN or JIS standard. By using our products is a guarantee of productivity and efficiency because our products are low-resistance,waterproof and dust that will be more long-time usage

Manufactured by :

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