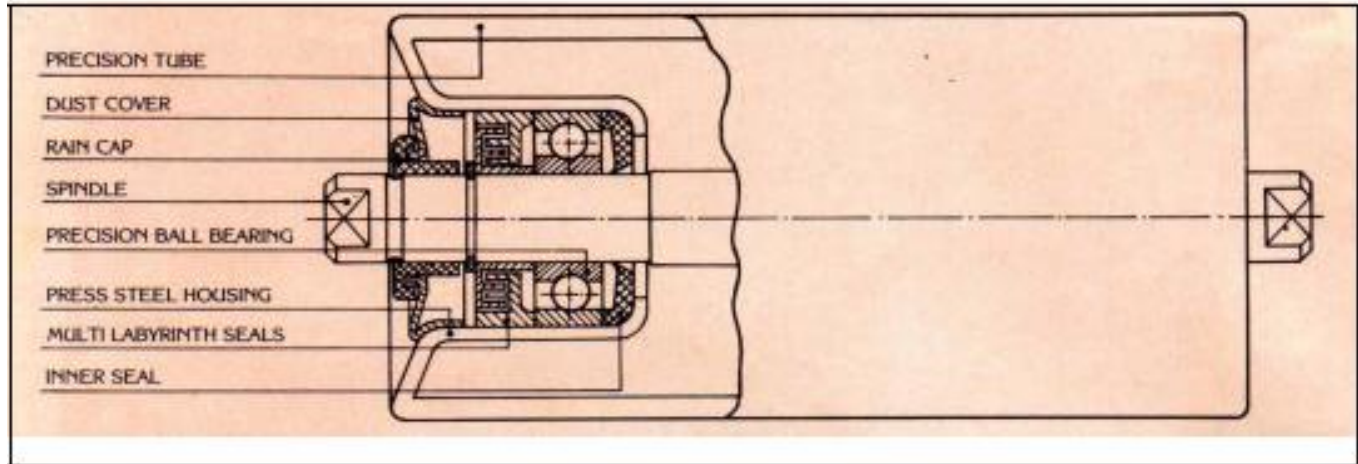




ROLLER CATALOGUE

BELT CONVEYOR IDLER ROLLERS



Range & Capacities:

SIMPLICITY has been manufacturing Spindles:

Spindles are manufactured from cold drawn bright bars of adequate capacity with perfect tolerances on concentricity and surface finish at bearing seating region to impart concentricity to roller and to ensure perfect fit between bearings and shaft.

Grease:

Rollers are grease-packed and sealed-for-life. Hi-lithium based grease is filled in measured quantity machines in bearings and sealing cavities. Due to this, rollers are not required to be re-lubricated for the entire designed rated life.

Economy:

Extremely light weight construction ensures less torque, imparting longer life to belt, motors, pulleys and driving arrangements; Extremely low friction factor ensures very low consumption of HP thereby conserving substantial amount of energy and resulting in greatest economy in operating costs. Grease-packed and sealed-for-life construction permit absolutely maintenance-free running of rollers thereby saving huge amount of man-hours, Labor costs and consumables.

Guarantee:

Rollers are guaranteed for 25,000 working hours, Selection of all components is based on an equally long life thereby enabling customer to achieve optimum life from each component of the roller.

Adjustability:

Rollers are manufactured to suit belt widths as per IS 4776 and are manufactured as per IS 8598 to suit existing conveyor frames. **SIMPLICITY** can manufacture specially designed idlers and can also supply adapters for the same. Conveyor Idlers for over 4 decades. Developments made and experience gained over the years has enabled us to offer most reliable and well-designed idlers for bulk material handling systems.

Our manufacturing program covers idlers for capacities between 50 TPH and 10,000 TPH and wide range of different types of idlers to handle coal, iron ore, fertilizer, lignite, cement and other such bulk materials.

Construction Features:

Idler rollers are manufactured to suit individual conveyor designs with specific attention to reliability, economy and ease of maintenance. Rollers are manufactured by welding bearing housings with the tube simultaneously from both sides. This forms a rigid mono box design imparting greater strength to the rollers. Precision manufactured bearing housings, perfect non-rubbing type of sealing arrangement, lowest possible friction-factor and long maintenance free life are hallmarks of **SIMPLICITY** Idlers.

Shell:

The shell is made of ERW tubes as per IS 9295. Smooth surface of tubes ensures low friction between belt and roller. Close tolerances on concentricity, ovality and thickness of the shell enable the conveyors to run

smooth without any vibrations, which can damage the conveyor structures.

Bearing Housings:

Special extra-deep drawing quality CRCA strips are used which are extremely lightweight, thus reducing HP consumption and starting torque. Since the bearing housings have close Tolerances on eccentricity and surface finish at the bearing-seating region equivalent to those specified for outer races of the bearings as per bearing manufacturers, the life of bearings and bearing assemblies is much longer.

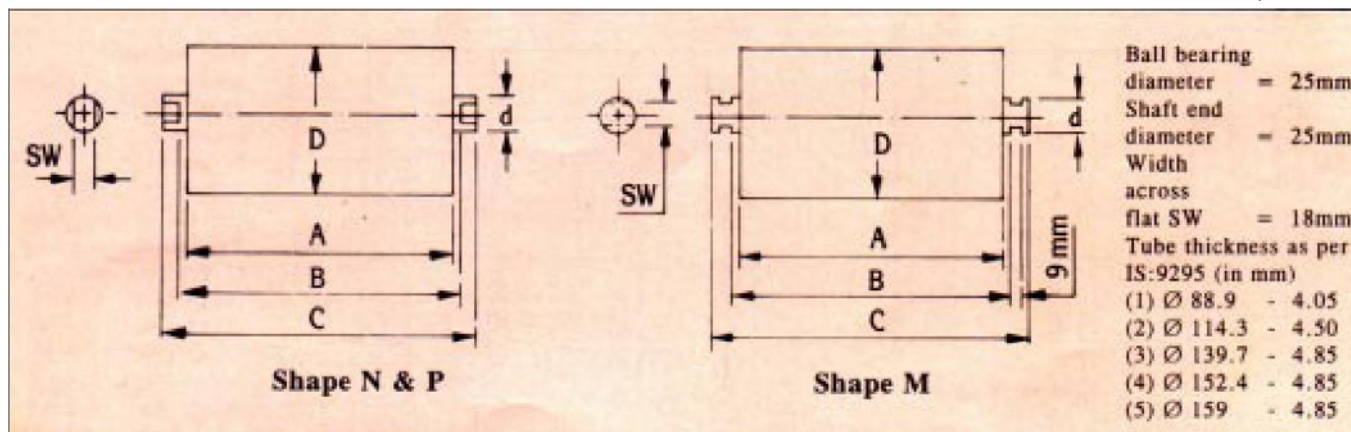
Bearings:

Single row deep groove ball bearings with C-3 clearance are used as per International Standards. Ball bearings are preferred for conveyor idler applications due to varying load and temperature conditions as also to provide for wide deflections in the shaft.

Sealing Arrangements:

Non-rubbings type multi-stage labyrinth sealing arrangement ensures perfect sealing of bearings from ingress of dust, water, slurry and other contaminations. Negligible friction due to non-rubbing type of sealing arrangement permits rollers for coefficient of friction as low as 0.0165.

Quality Control: All roller components are tested at every stage of manufacture. 100%-assembled rollers are tested for free rotation and random sample tests are also carried out for ingress of dust.



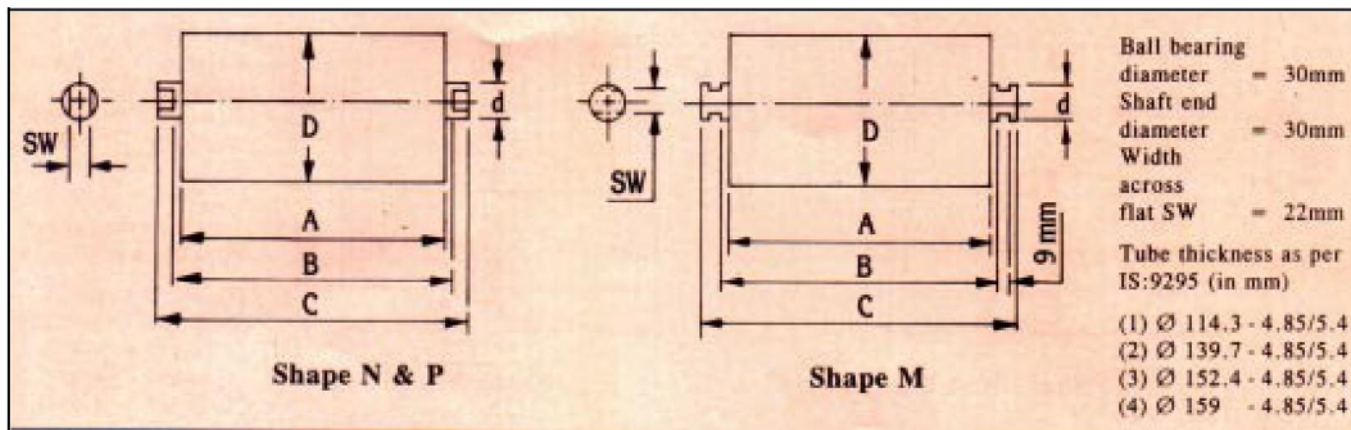
Belt width. (mm)	Roller dia. (mm)	Shape M					Shape N					Shape P				
		Dimension in mm			Weight in kg per roller		Dimension in mm			Weight in kg per roller		Dimension in mm			Weight in kg per roller	
		A	B	C	Rotating parts	Total	A	B	C	Rotating parts	Total	A	B	C	Rotating parts	Total
400	88.9				5	8				3	5				2	3
	114.3				7	10				4	6				3	4
	139.7				9	12	250	258	282	5	7	160	168	192	4	5
	152.4				10	13				6	7				4	5
450	88.9				6	8				4	5				3	4
	114.3				8	11				5	6				4	5
	139.7	550	558	586	10	13	290	298	322	6	8	190	198	222	4	6
	152.4				11	14				7	8				5	6
500	88.9				6	9				4	5				3	4
	114.3				9	11				5	7				4	5
	139.7	600	608	636	11	14	315	323	347	7	8	200	208	232	5	6
	152.4				12	15				7	9				5	6
600	88.9				7	10				4	6				3	4
	114.3				10	13				5	7				4	5
	139.7	700	708	736	13	16	350	358	382	7	9	235	243	267	5	6
	152.4				14	17				8	9				6	7
650	88.9				7	11				4	6				3	5
	114.3				10	14				6	8				4	6
	139.7	750	758	786	14	17	380	388	412	8	9	250	258	282	5	7
	152.4				15	18				8	10				6	7
750	88.9				8	12				5	7				4	5
	114.3				12	15				6	8				5	6
	139.7	850	858	886	15	19	415	423	447	8	10	290	298	322	6	8
	152.4				16	20				9	11				7	8
800	88.9				9	13				5	7				4	5
	114.3				13	17				7	9				5	7
	139.7	950	958	986	17	21	465	473	497	9	11	315	323	347	7	8
	152.4				18	23				10	12				7	9
900	159				19	23				10	12				7	9
	88.9				10	15				6	8				4	6
	114.3				14	19				8	10				5	7
	139.7	1050	1058	1086	18	23	530	538	562	10	12	350	358	382	7	9
1000	152.4				20	25				11	13				8	9
	159				21	26				11	14				8	10
	88.9				11	10				6	9				4	6
	114.3				15	20				9	12				6	9
1050	139.7	1150	1158	1186	20	25	600	608	632	11	14	380	388	412	8	10
	152.4				22	27				12	15				9	11
	159				23	28				13	15				9	10
	88.9				11	17				6	9				4	6
1200	114.3				16	21				9	12				6	8
	139.7	1200	1208	1236	21	26	625	633	657	12	14	400	408	432	8	10
	152.4				23	28				13	15				9	11
	159				24	29				13	16				9	11
1400	114.3				18	24				10	13				7	9
	139.7	1400	1408	1436	24	30	700	708	732	13	16				9	11
	152.4				26	32				14	17	465	473	497	10	12
	159				27	34				15	18				10	12
1500	114.3				21	28				11	15				8	10
	139.7	1600	1608	1636	27	34	800	808	832	14	18				10	12
	152.4				30	37				16	19	530	538	562	11	13
	159				31	38				16	20				11	14
1600	114.3				22	29				12	15				8	11
	139.7	1700	1708	1736	29	36				15	19				11	13
	152.4				32	39	850	858	882	17	20	565	573	597	12	14
	159				33	40				17	21				12	15
1800	114.3				23	31				12	16				9	11
	139.7	1800	1808	1836	30	38	900	908	932	16	20	600	608	632	11	14
	152.4				33	41				17	21				12	15
	159				35	43				18	22				13	15
	114.3				26	34				13	18				9	12
	139.7	2000	2008	2036	34	42				18	22				12	15
	152.4				37	45	1000	1008	1032	19	24	670	678	702	13	16
	159				38	47				20	24				14	17

Belt width not covered in IS : 8598.

For your replacement requirement with different mounting dimensions, please consult SIMPLICITY

Total weight of roller has been calculated considering 1 26 shaft.

Weight given above is for roller type ENR/205. For ENR/305 add 0.15kg. for rotating weight & 0.30kg for total weight indicated above are calculated.



Belt width. (mm)	Roller dia. (mm)	Shape M					Shape N					Shape P				
		Dimension in mm			Weight in kg per roller		Dimension in mm			Weight in kg per roller		Dimension in mm			Weight in kg per roller	
		A	B	C	Rotating parts	Total	A	B	C	Rotating parts	Total	A	B	C	Rotating parts	Total
1000	114.3				19	27				11	15				8	11
	139.7				23	31				13	18				9	12
	152.4	1150	1158	1186	25	33	600	608	632	15	19	380	388	412	10	13
	159				26	34				15	20				11	14
1200	114.3				23	32				13	18				9	13
	139.7				28	37				15	20				11	14
	152.4	1400	1408	1436	30	40	700	708	732	17	22	465	473	497	12	15
	159				32	41				17	22				12	16
1400	114.3				26	36				14	20				10	14
	139.7				31	42				17	23				12	16
	152.4	1600	1608	1636	34	45	800	808	832	19	24	530	538	562	13	17
	159				36	46				19	25				14	18
1500	114.3				27	38				15	21				11	15
	139.7				33	44				18	24				13	17
	152.4	1700	1708	1736	36	47	850	858	882	19	25	565	573	597	14	18
	159				38	49				20	26				15	19
1600	114.3				28	40				15	22				11	15
	139.7				35	47				19	25				13	18
	152.4	1800	1808	1836	38	50	900	908	932	20	27	600	608	632	15	19
	159				40	52				21	28				15	20
1800	114.3				31	45				17	24				12	17
	139.7				38	52				21	27				15	19
	152.4	2000	2008	2036	42	55	1000	1008	1032	22	29	670	678	702	16	21
	159				44	57				23	30				17	21
2000	114.3				34	49				18	26				13	19
	139.7				42	57				22	30				16	21
	152.4	2200	2208	2236	46	60	1100	1108	1132	24	32	750	758	782	18	23
	159				48	62				25	33				18	24
2200	114.3				39	55				21	29				14	20
	139.7				47	64				25	33				17	23
	152.4	2500	2508	2536	52	68	1250	1258	1282	27	36	800	808	832	19	24
	159				54	70				29	37				19	25
2400	114.3				43	61				23	32				15	22
	139.7				53	71				28	37				19	25
	152.4	2800	2808	2836	58	76	1400	1408	1432	30	40	900	908	932	20	27
	159				60	78				32	41				21	28

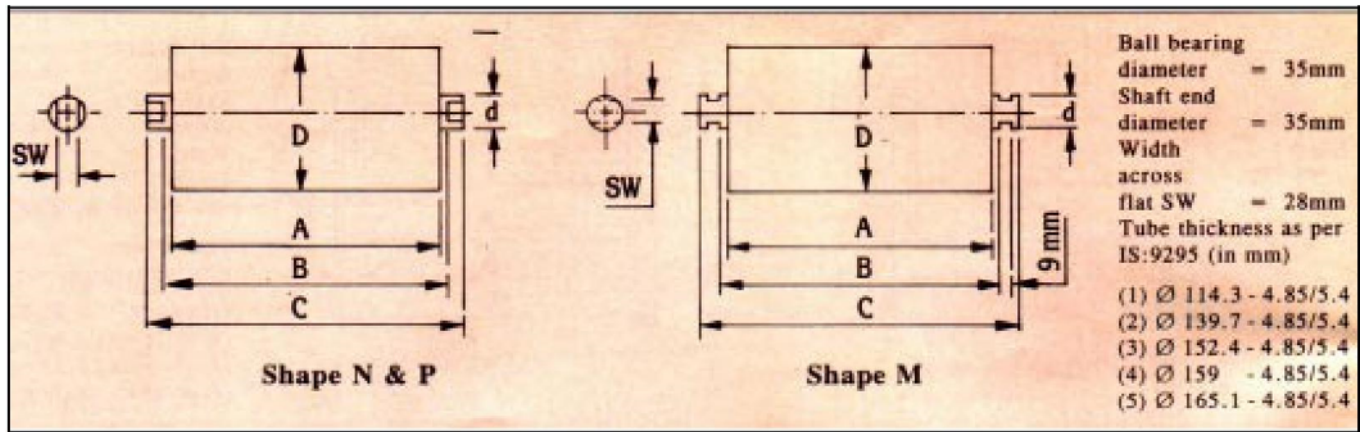
Belt width not covered in IS : 8598.

For your replacement requirement with different mounting dimensions, please consult SIMPLICITY.

Total weight of roller has been calculated considering 1/32-shaft & tube thickness 5.4.

Weight given above is for roller type ENR/306. For ENR/206 deduct 0.52 kg for rotating part weight & 0.67kg for total weight.

Weights indicated above are calculated.



Belt width. (mm)	Roller dia. (mm)	Shape M						Shape N						Shape P					
		Dimension in mm			Weight in kg per roller			Dimension in mm			Weight in kg per roller			Dimension in mm			Weight in kg per roller		
		A	B	C	Rotating parts	Total		A	B	C	Rotating parts	Total		A	B	C	Rotating parts	Total	
1000	114.3				19	29					11	16					8	12	
	139.7				23	33					13	19					9	13	
	152.4	1150	1158	1186	25	35	600	608	632		15	20	380	388	412		10	14	
	159				26	36					15	20					11	14	
	165.1				27	37					16	21					11	15	
1200	114.3				23	35					13	19					9	13	
	139.7				28	40					15	21					11	15	
	152.4	1400	1408	1436	30	43	700	708	732		17	23	465	473	497		12	16	
	159				32	43					17	23					12	17	
	165.1				33	45					18	24					13	17	
1400	114.3				26	39					14	21					10	15	
	139.7				31	45					17	24					12	17	
	152.4	1600	1608	1636	34	48	800	808	832		19	25	530	538	562		13	18	
	159				36	49					19	26					14	19	
	165.1				37	50					20	27					14	19	
1500	114.3				27	41					15	22					11	16	
	139.7				33	47					18	25					13	18	
	152.4	1700	1708	1736	36	50	850	858	882		19	26	565	573	597		14	19	
	159				38	52					20	28					15	20	
	165.1				39	53					21	28					15	20	
1600	114.3				28	43					15	23					11	16	
	139.7				35	50					19	26					13	19	
	152.4	1800	1808	1836	38	53	900	908	932		20	29	600	608	632		15	20	
	159				40	55					21	29					15	21	
	165.1				41	56					22	30					16	21	
1800	114.3				31	48					17	25					12	18	
	139.7				38	55					21	29					15	21	
	152.4	2000	2008	2036	42	58	1000	1008	1032		22	31	670	678	702		16	22	
	159				44	60					23	32					17	23	
	165.1				46	62					24	33					17	23	
2000	114.3				34	52					18	28					13	20	
	139.7				42	60					22	32					16	23	
	152.4	2200	2208	2236	46	64	1100	1108	1132		24	34	750	758	782		18	24	
	159				48	66					25	35					18	25	
	165.1				50	68					26	36					19	25	
2200	114.3				39	59					21	31					14	21	
	139.7				47	68					25	36					17	24	
	152.4	2500	2508	2536	52	72	1250	1258	12823		27	38	800	808	832		19	25	
	159				54	75					29	39					19	26	
	165.1				56	77					30	43					20	27	
2400	114.3				43	66					23	34					15	23	
	139.7				53	76					28	40					19	27	
	152.4	2800	2808	2836	58	81	1400	1408	1432		30	42	900	908	932		20	29	
	159				60	83					32	43					21	29	
	165.1				63	86					33	44					22	30	

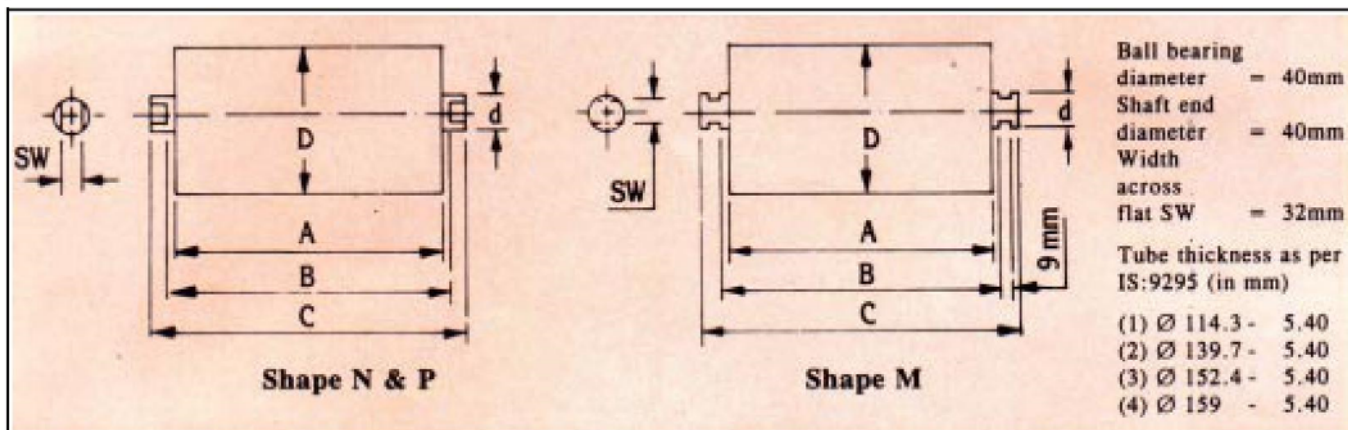
Belt width not covered in IS : 8598.

For your replacement requirement with different mounting dimensions, please consult SIMPLICITY.

Total weight of roller has been calculated considering I36 shaft & tube thickness 5.4.

Rollers of the tube O.D. 168.1, with brg. 6307, have, recently been developed.

Weights indicated above are calculated.



Belt width. (mm)	Roller dia. (mm)	Shape M					Shape N					Shape P				
		Dimension in mm			Weight in kg per roller		Dimension in mm			Weight in kg per roller		Dimension in mm			Weight in kg per roller	
		A	B	C	Rotating parts	Total	A	B	C	Rotating parts	Total	A	B	C	Rotating parts	Total
1000	139.7				25	38				15	22				11	16
	152.4	1150	1158	1186	27	40	600	608	632	16	23	380	388	412	12	17
	159				28	41				17	24				12	17
1200	139.7				29	45				17	25				12	18
	152.4	1400	1408	1436	32	48	700	708	732	18	26	465	473	497	13	19
	159				33	49				19	27				14	20
1400	139.7				33	51				18	28				14	20
	152.4	1600	1608	1636	36	54	800	808	832	20	29	530	538	562	15	21
	159				37	55				23	30				15	22
1500	139.7				35	54				19	29				14	21
	152.4	1700	1708	1736	37	57	850	858	882	21	31	565	573	597	15	22
	159				39	59				22	32				16	23
1600	139.37				40	63				20	31				15	22
	152.4	1800	1808	1836	39	60	900	908	932	22	32	600	608	632	16	23
	159				41	62				23	33				17	24
1800	139.7				40	63				22	34				16	24
	152.4	2000	2008	2036	43	66	1000	1008	1032	24	36	670	678	702	17	25
	159				45	68				25	37				18	26
2000	139.7				43	68				24	37				18	27
	152.4	2200	2208	2236	47	72	1100	1108	1132	26	39	750	758	782	19	28
	159				49	74				27	40				20	29
2200	139.7				49	77				26	41				18	28
	152.4	2500	2508	2536	53	81	1250	1258	1282	29	43	800	808	832	20	29
	159				55	84				30	44				21	30
2400	139.7				54	86				29	45				20	31
	152.4	2800	2808	2836	59	90	1400	1408	1432	32	48	900	908	932	22	32
	159				62	93				33	49				23	33
2600	139.7				58	91				31	48				21	32
	152.4	3000	3008	3036	63	97	1500	1508	1532	34	51	950	958	982	23	34
	159				66	99				35	52				24	35

Belt width not covered in IS : 8598.

For your replacement requirement with different mounting dimensions, please consult SIMPLICITY.

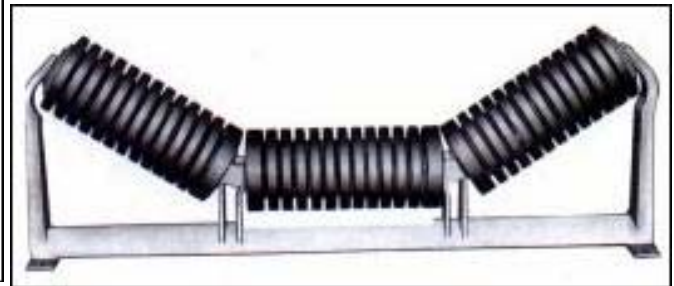
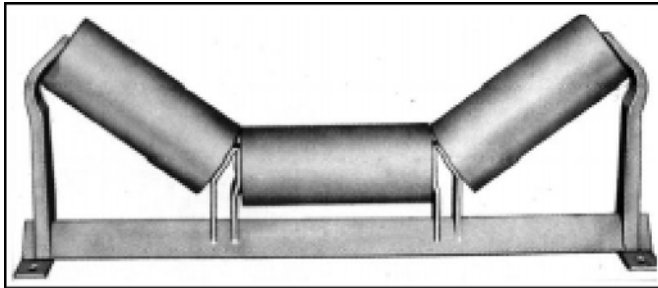
Total weight of roller has been calculated considering $\phi 42$ shaft.

Weights indicated above are calculated.

TABLE FOR CONVEYOR IDLER

Please furnish the following data for selection:

Conveyor	Belt	Roller	Spindle
Capacity	Width	Diameter	Diameter
Length	Speed	Length	Length
Lift	Pitch	Shell Thickness	Bearing Size



Manufactured by:
M/s SIMPLICITY PROJECTS PVT. LTD.

G1/1275, RIICO INDUSTRIAL AREA, RAMPUR MUNDANA, BHIWADI-301019

MAIL ID :- sppl@simplicityprojects.com website: simplicityprojects.com MOBILE : 9811517100