

OPTI-M Roller



www.motion.co.th







OPTI-M

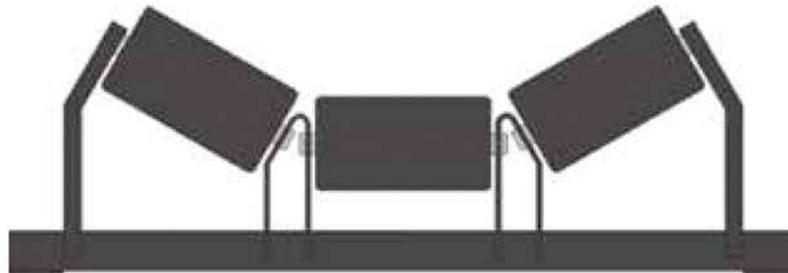
CONVEYOR MACHINERY



Together, We Make It Better.

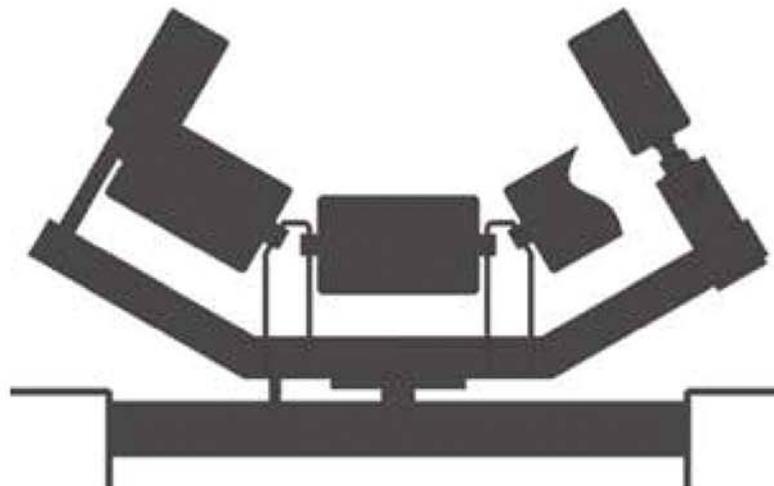
TYPE OF CARRYING

a



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

b



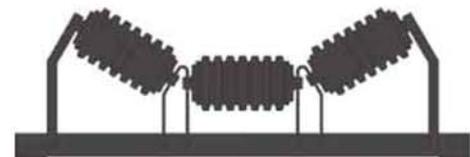
Self-aligning carrier roller automatically trains belt and protects edges from damage cause misalignment. It's produced with inclination degree of 30° ,35° ,45°

c



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

d



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

TYPE OF RETURN



Return roller carries the empty belt on return run.



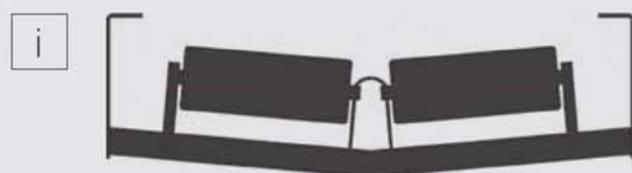
Rubber Disc Return roller used when wet, sticky material tends to cling to the belt. Also used to avoid corrosion .It's produced in NR or SBR.



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



Self-aligning return roller automatically trains the belt return and protects edges from damage cause by belt misalignment.



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° .

PHOTO GALLERY



CARRIER ROLLER



RUBBER DISC
RETURN ROLLER



HDPE
CARRIER ROLLER



IMPACT ROLLER
GUIDE ROLLER

PHOTO GALLERY



 SPIRAL RUBBER RETURN ROLLER



TAKE UP PULLEY



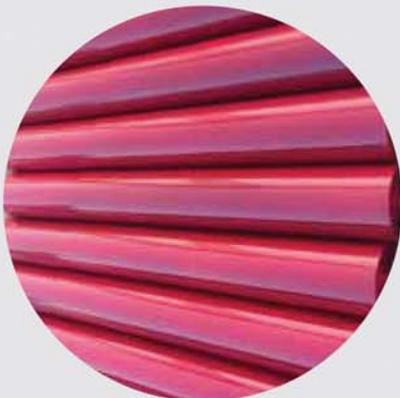
IMPACT ROLLER SET



SELF ALIGNING CARRIER ROLLER



DRIVE PULLEY WITH CERAMIC LAGGING



RETURN ROLLER



CARRIER ROLLER SET

■ CRS – ■ 100 – ■ 30 – ■ A1

Description		Belt Width	
CR	Carrier Roller	40	400
IR	Impact Roller	45	450
RR	Return Roller	50	500
VR	V – Return Roller	60	600 \varnothing 89.1
RDR	Rubber Disc Return Roller	65	650
SRR	Spiral Return Roller	61	600 \varnothing 114.3
GR	Guide Roller	75	750
PEC	HDPE Carrier Roller	80	800
PER	HDPE Return Roller	90	900
CRS	Carrier Roller Stand	100	1000
IRS	Impact Roller Stand	105	1050
TRS	Transition Stand	120	1200
RRS	Return Roller Stand	140	1400
VRS	V – Return Roller Stand	160	1600
SACR	Self Aligning Carrie Roller	180	1800
SAVR	Self Aligning Return Roller	200	2000
HP	Self Aligning V – Return Roller	220	2200
DP	Head Pulley	240	2400
TP	Drive Pulley		
BP	Tail Pulley		
SP	Snub Pulley		
TUP	Take-up Pulley		

– ■ 02

Trough Angle

00	0° /Roller Only
05	5°
10	10°
15	15°
20	20°
25	25°
30	30°
35	35°
45	45°

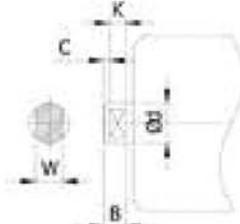
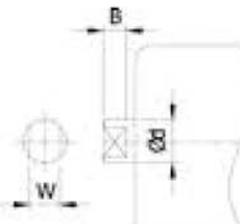
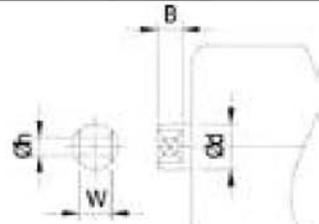
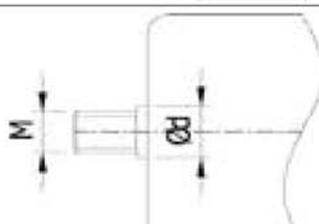
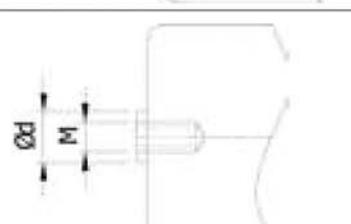
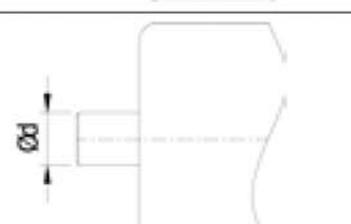
Shaft Slot Type

See page 9

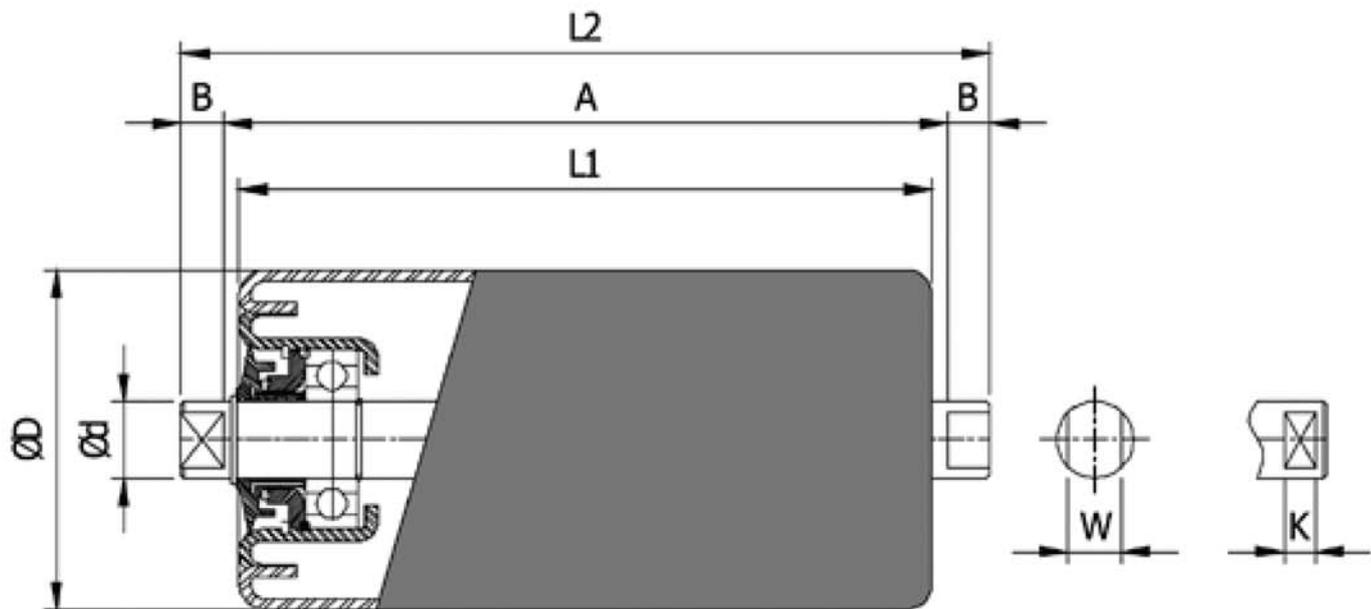
Bearing Type

02	Ball Bearing Series 62
03	Ball Bearing Series 63

SHAFT SLOT TYPE

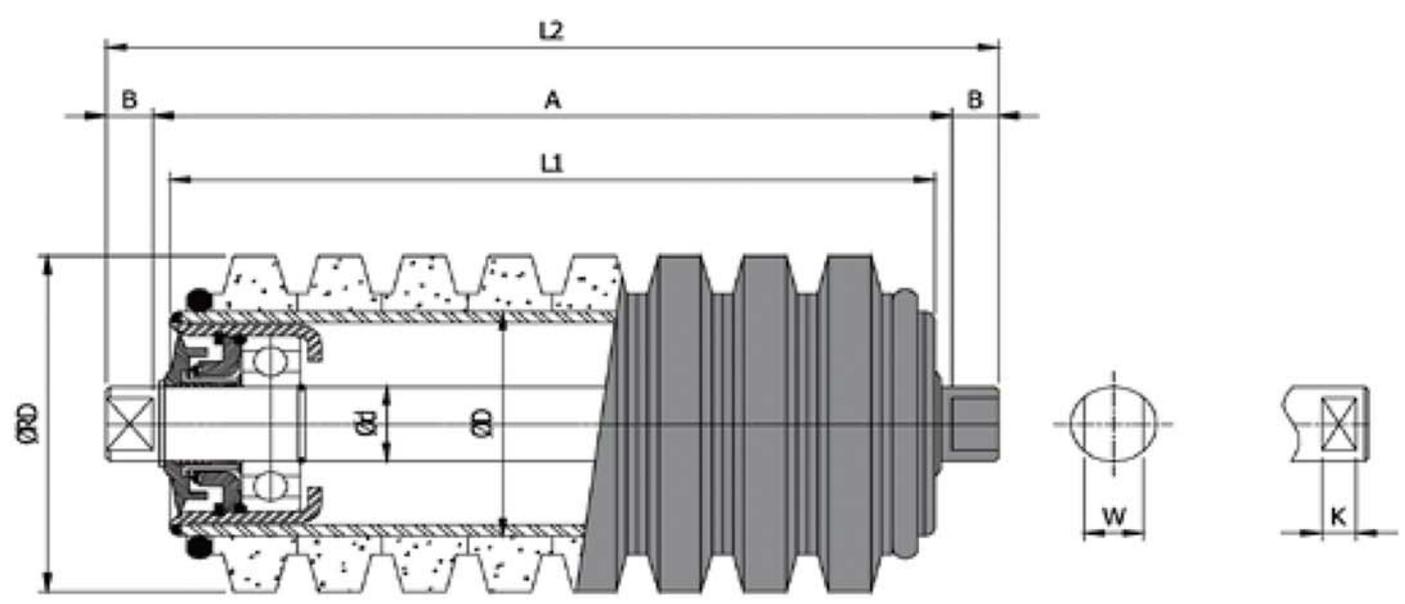
Type	Arrangement	Dimension				
		ϕd	B	K	C	W
A1		20	11	8	3	14
		25	15	11	4	18
		30				22
		35				25
		40				31
		50				42
A2		20	11	—	—	14
		25	15	—	—	18
		30		—	—	22
		35		—	—	25
		40		—	—	31
		50		—	—	42
A3		20	11	—	—	14
		25	15	—	—	18
		30	17	—	—	22
		35	20	—	—	25
		40	20	—	—	31
		50	25	—	—	42
A4		20	M16		—	—
		25	M22		—	—
		30	M24		—	—
		35	M32		—	—
		40	M36		—	—
		50	M36		—	—
A5		20	M8		—	—
		25	M10		—	—
		30	M12		—	—
		35	M12		—	—
		40	M14		—	—
		50	M16		—	—
A6		20	—	—	—	—
		25	—	—	—	—
		30	—	—	—	—
		35	—	—	—	—
		40	—	—	—	—
		50	—	—	—	—
A7		20	ϕ as required			
		25				
		30				
		35				
		40				
		50				

CARRIER ROLLER



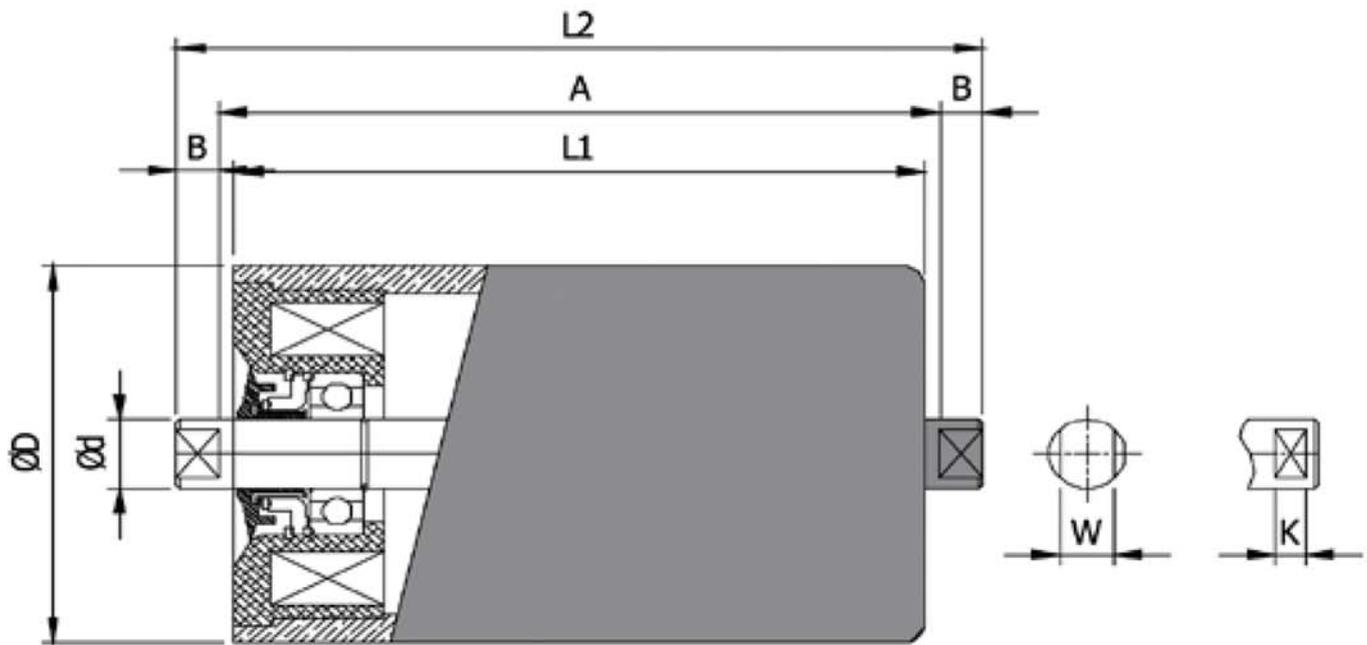
Belt Width	Type	Dimension								Bearing	
		$\varnothing D$	$\varnothing d$	L1	L2	A	K	B	W		
400	CR-400	$\varnothing 89.1$	$\varnothing 20$	145	175	153	8	11	14	6204 2RS	
450	CR-450			165	195	173					
500	CR-500			180	210	188					
600	CR-600-1			210	240	218					
650	CR-650			225	255	233					
600	CR-600-2	$\varnothing 114.3$	$\varnothing 20$	210	240	218	8	11	14	6204 2RS	
750	CR-750			265	295	273					
800	CR-800			275	305	283					
900	CR-900			315	345	323					
1000	CR-1000			350	390	360					
1050	CR-1050	$\varnothing 139.8$	$\varnothing 25$	370	410	380	11	15	18	6205 2RS	
1200	CR-1200			420	460	430					
1400	CR-1400			500	540	510					
1600	CR-1600	$\varnothing 165.2$	$\varnothing 30$	580	620	590	11	15	22	6206 2RS	
1800	CR-1800			650	690	660					
2000	CR-2000		$\varnothing 35$	730	770	740			25	31	6207 2RS
2200	CR-2200			800	840	810					
2400	CR-2400			$\varnothing 40$	880	920					

IMPACT ROLLER



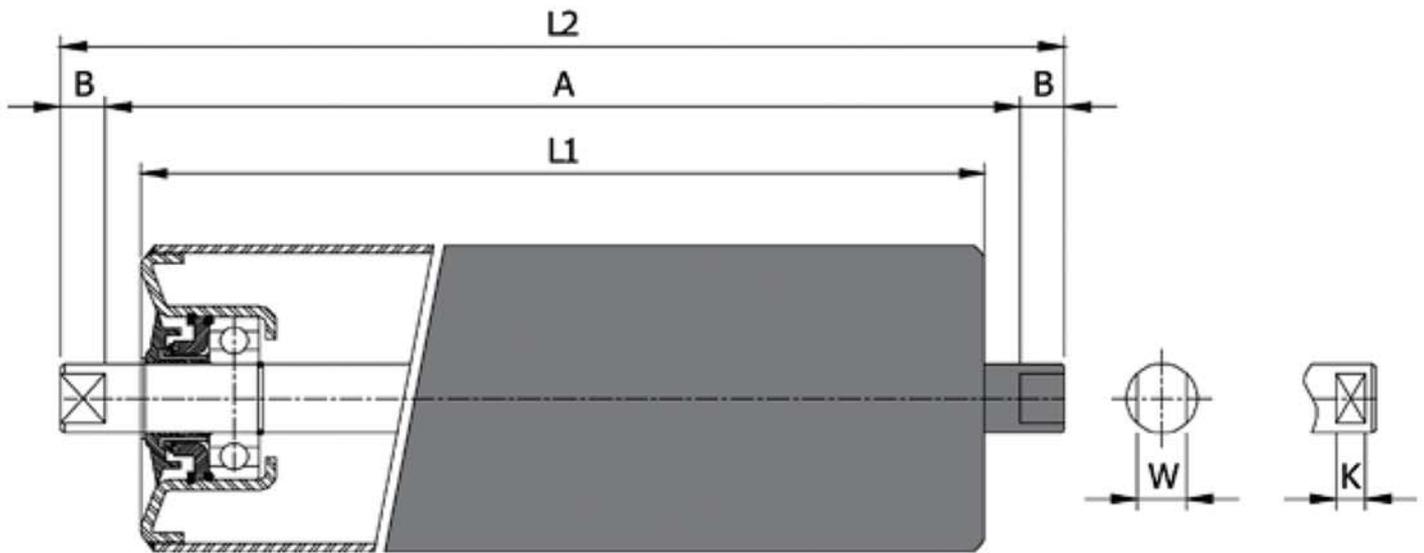
Belt Width	Type	Dimension									Bearing
		ϕ RD	ϕ D	ϕ d	L1	L2	A	K	B	W	
400	IR-400	ϕ 90	ϕ 60.3	ϕ 20	145	175	153	8	11	14	6204 2RS
450	IR-450				165	195	173				
500	IR-500				180	210	188				
600	IR-600-1				210	240	218				
650	IR-650				225	255	233				
600	IR-600-2	ϕ 115	ϕ 76.3	ϕ 20	210	240	218	11	15	14	6204 2RS
750	IR-750				265	295	273				
800	IR-800				275	305	283				
900	IR-900				315	345	323				
1000	IR-1000	ϕ 140	ϕ 89.1	ϕ 25	350	390	360	11	15	18	6205 2RS
1050	IR-1050				370	410	380				
1200	IR-1200				420	460	430				
1400	IR-1400				500	540	510				
1600	IR-1600	ϕ 166	ϕ 114.3	ϕ 30	580	620	590	11	15	22	6206 2RS
1800	IR-1800				650	690	660				
2000	IR-2000			ϕ 35	730	770	740			25	6207 2RS
2200	IR-2200				800	840	810				
2400	IR-2400				ϕ 40	880	920				

HDPE ROLLER



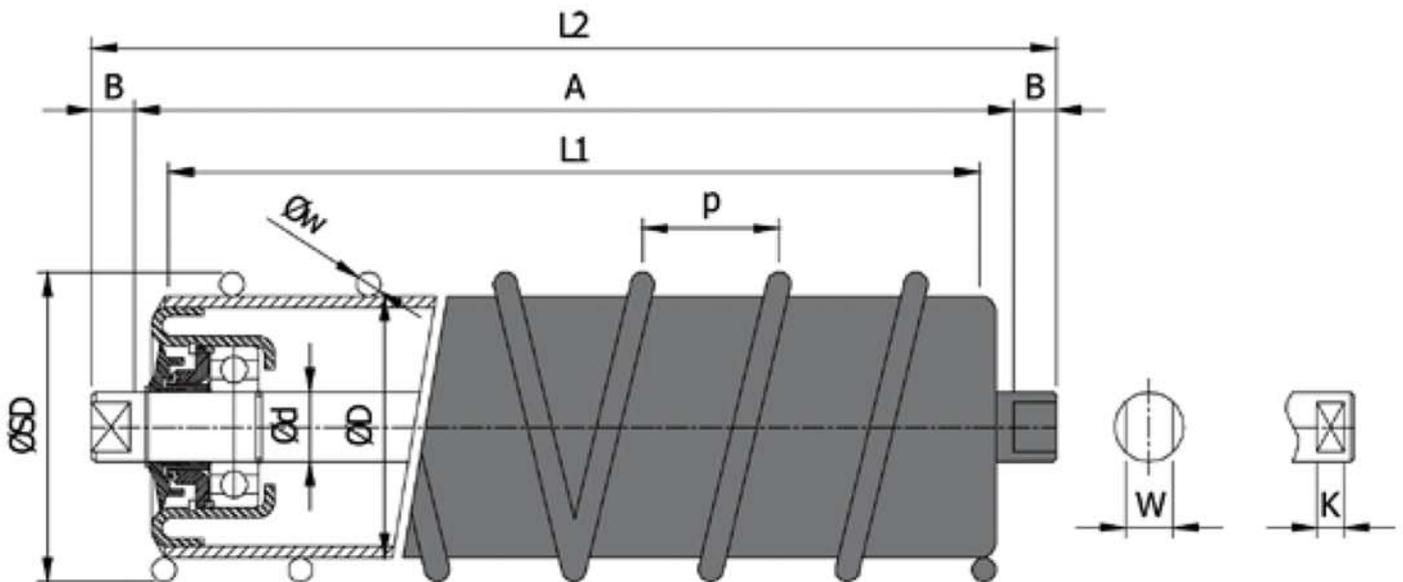
Belt Width	Dimension						HDPE CARRIER ROLLER				HDPE RETURN ROLLER			
	ØD	Ød	K	B	W	Bearing	Type	lL	L2	A	Type	L1	L2	A
400	Ø 90	Ø20	8	12.5	14	6204 2RS	PEC-400	145	175	153	PER-400	460	505	480
450							PEC-450	165	195	173	PER-450	510	555	530
500							PEC-500	180	210	188	PER-500	560	605	580
600							PEC-600-1	210	240	218	PER-600-1	660	705	680
650	Ø 110	Ø20	8	12.5	14	6204 2RS	PEC-650	225	255	233	PER-650	710	755	730
600							PEC-600-2	210	240	218	PER-600-2	660	705	680
750							PEC-750	265	295	273	PER-750	850	905	880
800							PEC-800	275	305	283	PER-800	900	955	930
900	Ø 125	Ø20	8	12.5	14	6204 2RS	PEC-900	315	345	323	PER-900	1000	1055	1030
1000							PEC-1000	350	390	360	PER-1000	1100	1162	1140
1050	Ø 140	Ø25	11	16	18	6205 2RS	PEC-1050	370	410	380	PER-1050	1150	1212	1180
1200							PEC-1200	420	460	430	PER-1200	1300	1362	1330
1400	Ø 160	Ø30	11	17.5	22	6206 2RS	PEC-1400	500	540	510	PER-1400	1510	1585	1550
1600							PEC-1600	580	620	590	PER-1600	1710	1785	1750
1800		Ø35			25	6207 2RS	PEC-1800	650	690	660	PER-1800	2000	2075	2040
2000							PEC-2000	730	770	740	PER-2000	2200	2275	2240
2200	Ø40	31	6308 2RS	PEC-2200	800	840	810	PER-2200	2400	2475	2440			
2400				PEC-2400	880	920	890	PER-2400	2600	2675	2640			

RETURN ROLLER



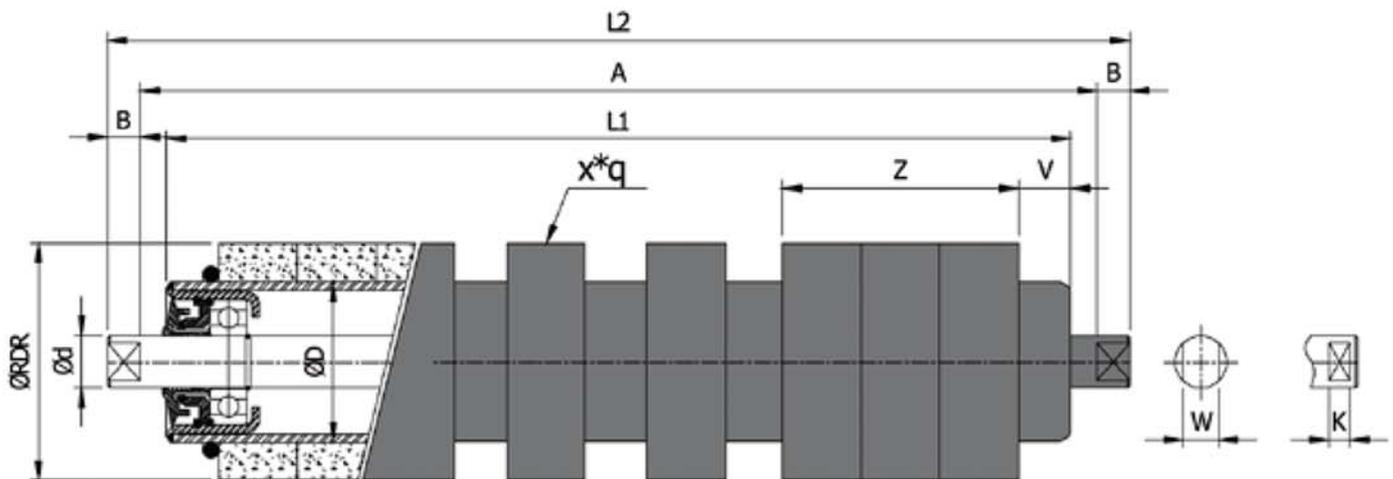
Belt Width	Dimension						RETURN ROLLER				V- RETURN ROLLER			
	ØD	Ød	K	B	W	Bearing	Type	L1	L2	A	Type	L1	L2	A
400	Ø 89.1	Ø20	8	12.5	14	6204 2RS	RR-400	460	505	480	VR-400	220	250	228
450							RR-450	510	555	530	VR-450	245	275	253
500							RR-500	560	605	580	VR-500	270	300	278
600							RR-600-1	660	705	680	VR-600-1	320	350	328
650	Ø114.3	Ø20	8	12.5	14	6204 2RS	RR-650	710	755	730	VR-650	365	395	373
600							RR-600-2	660	705	680	VR-600-2	320	350	328
750							RR-750	850	905	880	VR-750	415	445	423
800							RR-800	900	955	930	VR-800	440	475	448
900	Ø139.8	Ø25	11	16	18	6205 2RS	RR-900	1000	1055	1030	VR-900	490	520	498
1000							RR-1000	1100	1162	1140	VR-1000	540	580	550
1050							RR-1050	1150	1212	1180	VR-1050	565	605	575
1200							RR-1200	1300	1362	1330	VR-1200	640	680	650
1400	Ø165.2	Ø30	11	17.5	22	6206 2RS	RR-1400	1510	1585	1550	VR-1400	750	790	760
1600							RR-1600	1710	1785	1750	VR-1600	850	890	860
1800		Ø35			25	6207 2RS	RR-1800	2000	2075	2040	VR-1800	980	1020	990
2000							RR-2000	2200	2275	2240	VR-2000	1080	1120	1090
2200	Ø40	31	6308 2RS	RR-2200	2400	2475	2440	VR-2200	1180	1220	1190			
2400				RR-2400	2600	2675	2640	VR-2400	1280	1320	1290			

SPIRAL RETURN ROLLER



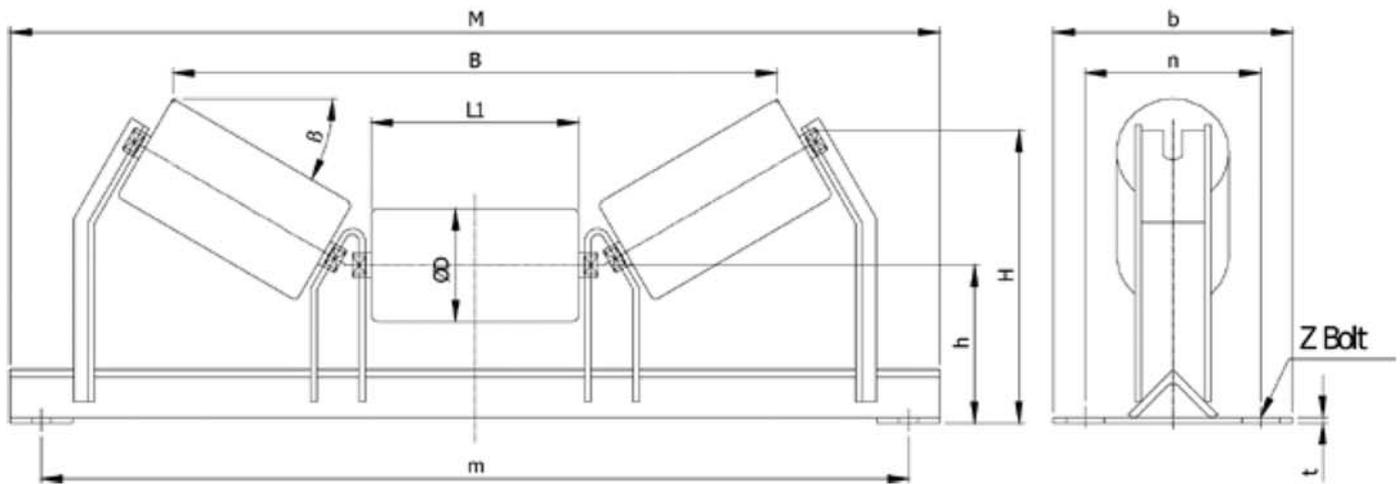
Belt Width	Type	Dimension											Bearing
		ØSD	ØD	Ød	Øw	p	L1	L2	A	K	B	W	
400	SRR-400	Ø 90.3	Ø 76.3	Ø 20	7	40	460	505	480	8	12.5	14	6204 2RS
450	SRR-450						510	555	530				
500	SRR-500						560	605	580				
600	SRR-600-1						660	705	680				
650	SRR-650						710	755	730				
600	SRR-600-2	Ø 115.1	Ø 89.1	Ø 20	13	50	660	705	680	11	16	18	6205 2RS
750	SRR-750						850	905	880				
800	SRR-800						900	955	930				
900	SRR-900						1000	1055	1030				
1000	SRR-1000						1100	1162	1140				
1050	SRR-1050	Ø 140.3	Ø 114.3	Ø 25	13	60	1150	1212	1180	11	17.5	22	6206 2RS
1200	SRR-1200						1300	1362	1330				
1400	SRR-1400						1510	1585	1550				
1600	SRR-1600	Ø 165.8	Ø 139.8	Ø 30	13	65	1710	1785	1750	11	17.5	25	6207 2RS
1800	SRR-1800						2000	2075	2040				
2000	SRR-2000						2200	2275	2240				
2200	SRR-2200						2400	2475	2440				
2400	SRR-2400						2600	2675	2640				

RUBBER DISC ROLLER



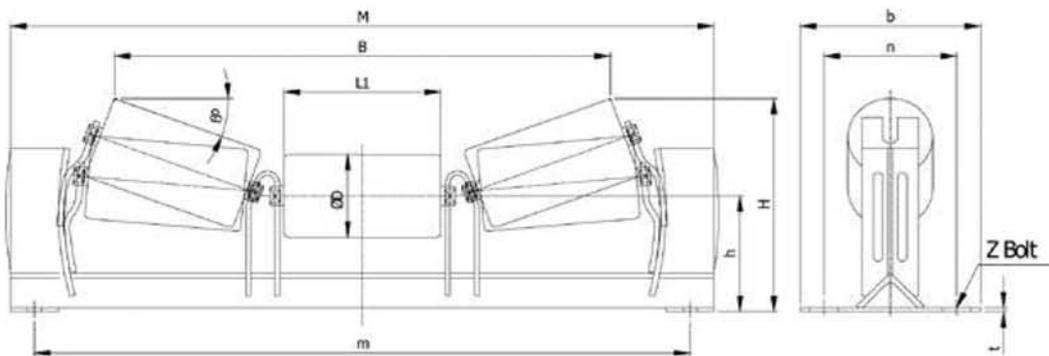
Belt Width	Type	Dimension																		
		ØRDR	ØD	Ød	V	Z	L1	L2	A	K	B	W	X*q							
400	RDR-400	$\text{Ø}90$	$\text{Ø}60.3$	$\text{Ø}20$	20	90	460	505	480	8	12.5	14	30*2							
450	RDR-450						510	555	530				30*3							
500	RDR-500						560	605	580				30*3							
600	RDR-600-1						660	705	680				30*4							
650	RDR-650						710	755	730				30*5							
600	RDR-600-2	$\text{Ø}115$	$\text{Ø}76.3$	$\text{Ø}20$	25	120	660	705	680	11	16	18	30*3							
750	RDR-750						850	905	880				30*5							
800	RDR-800						900	955	930				30*5							
900	RDR-900						1000	1055	1030				30*6							
1000	RDR-1000						1100	1162	1140				30*5							
1050	RDR-1050	$\text{Ø}140$	$\text{Ø}89.1$	$\text{Ø}25$	25	160	1150	1212	1180	11	17.5	22	30*5							
1200	RDR-1200						1300	1362	1330				30*6							
1400	RDR-1400						1510	1585	1550				30*5							
1600	RDR-1600						1710	1785	1750				30*5							
1800	RDR-1800						2000	2075	2040				30*6							
2000	RDR-2000	$\text{Ø}166$	$\text{Ø}114.3$	$\text{Ø}35$	200	200	2200	2275	2240	11	17.5	25	30*7							
2200	RDR-2200						2400	2475	2440				30*8							
2400	RDR-2400						2600	2675	2640				30*9							
									$\text{Ø}40$										31	

CARRIER/IMPACT STAND



Belt Width	Type	Dimension																		
		$\varnothing D$	L1	m	M	h	n	b	t	Z	$\beta=20^\circ$		$\beta=30^\circ$		$\beta=35^\circ$		$\beta=45^\circ$		Angle	
											B	H	B	H	B	H	B	H		
400	CRS-400	89.1	145	640	690	125	140	190	6	M12	465	223	426	246	-	-	-	-	L50x6	
450	CRS-450		522	230	481						256	-	-	-	-					
500	CRS-500		180	740	790	140	150	200	6		565	235	522	264	-	-	-	-		L60x6
600	CRS-600-1		210	840	890						652	261	604	294	-	-	-	-		
650	CRS-650	225	890	940	150	160	210	6	M12	695	266	640	302	-	-	-	-	L75x6		
600	CRS-600-2	210	840	890						643	282	610	317	589	333	546	364			
750	CRS-750	265	1040	1090						802	301	760	344	734	365	678	403			
800	CRS-800	275	1090	1140						830	304	787	349	760	370	702	410			
900	CRS-900	315	1190	1240	180	180	230	6	M12	946	318	897	369	866	393	799	438	L90x8		
1000	CRS-1000	350	1290	1340						1057	374	998	431	961	456	882	504			
1050	CRS-1050	370	1340	1390						1115	381	1053	441	1014	468	931	519			
1200	CRS-1200	420	1490	1540						1295	398	1190	466	1146	497	1052	555			
1400	CRS-1400	165.2	500	1730	1790	250	280	340	9	M16	1490	508	1414	589	1370	627	1261	697	L100x9	
1600	CRS-1600		580	1930	1990						1720	535	1633	629	1581	673	1454	754		
1800	CRS-1800		650	2220	2280	280	330	390	9		1922	589	1824	694	1766	743	1623	833		
2000	CRS-2000		730	2420	2480						2152	617	2042	734	1977	789	1816	890		
2200	CRS-2200	300	2620	2680	330	330	390	12	M20	-	-	2234	789	2161	849	1985	959	L130x12		
2400	CRS-2400									880	2820	2880	-	-	2452	829	2372		895	2178

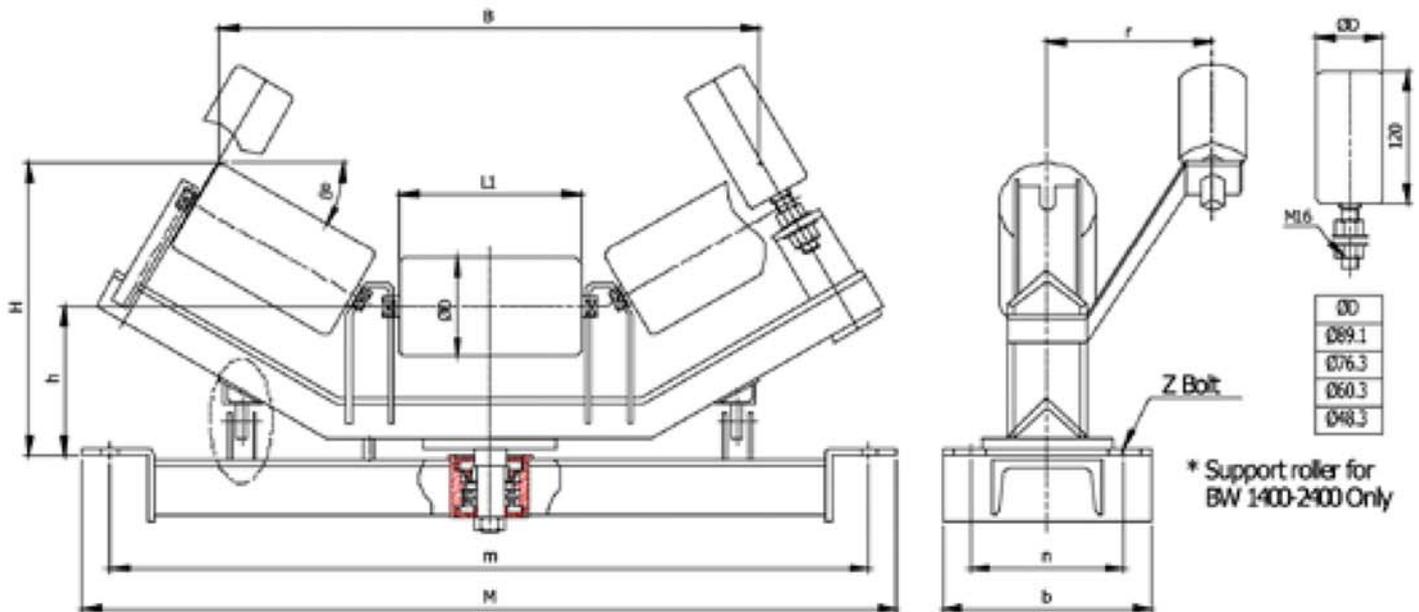
TRANSITION STAND



05° ~ 20°
05° ~ 30°

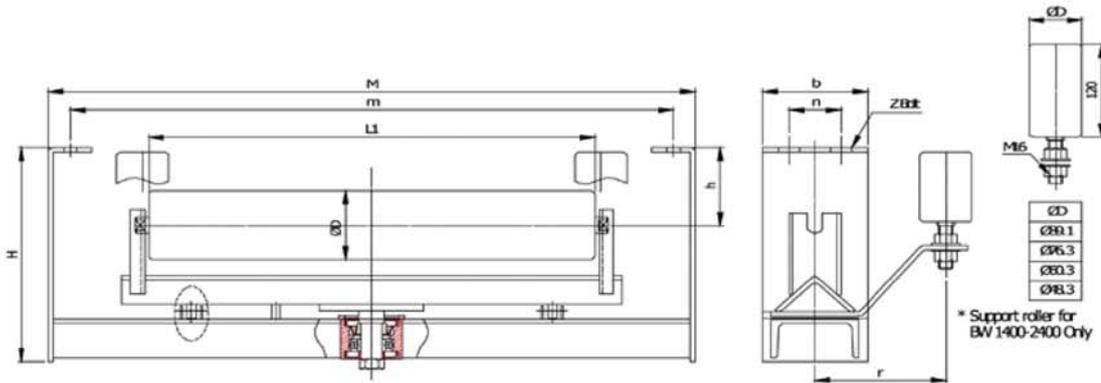
Belt Width	Type	Dimension														Z	Angle		
		ØD	LI	m	M	h	n	b	t	β=5°		β=20°		β=30°					
										B	H	B	H	B	H				
400	TRS-400	Ø 89.1	145	640	690	125	140	190	6	506	184	465	223	426	246	M12	L50xt6		
450	TRS-450		165	690	740					566	186	522	230	481	256				
500	TRS-500		180	740	790	140	150	200	6	611	187	565	235	522	264				
600	TRS-600-1		210	840	890					700	204	652	261	604	294				
650	TRS-650	225	890	940	150	160	210	6	744	205	695	266	640	302	L60xt6				
600	TRS-600-2	210	840	890					698	227	643	282	610	317					
750	TRS-750	265	1040	1090					180	180	230	6	863	232	802		301	760	344
800	TRS-800	275	1090	1140									874	251	830		304	787	349
900	TRS-900	315	1190	1240	180	180	230	6	1012	236	946	318	897	369					
1000	TRS-1000	350	1290	1340					1135	282	1057	374	998	431	L90xt8				
1050	TRS-1050	370	1340	1390					140	140	190	6	1195	284		1115	381	1053	441
1200	TRS-1200	420	1490	1540									1344	288	1259	398	1190	466	
1400	TRS-1400	500	1730	1790	250	280	340	9	1592	378	1490	508	1414	589	M16	L100xt9			
1600	TRS-1600	580	1930	1990					1831	385	1720	535	1633	629					
1800	TRS-1800	650	2220	2280	280	330	390	9	2040	421	1922	589	1824	694					
2000	TRS-2000	730	2420	2480					2280	428	2152	617	2042	734					
2200	TRS-2200	800	2620	2680	300	330	390	12	2489	454	2210	667	2234	789	M20	L130xt12			
2400	TRS-2400	880	2820	2880					2729	461	2430	795	2452	829					

SELF ALIGNING CARRIER



Belt Width	Type	ØD	Dimension										Channel						
			L1	m	M	h	n	b	t	r	β=20°		β=30°		β=35°		β=45°		
											B	H	B	H	B	H	B	H	
400	SACR-400	89.1	145	640	690	135	140	190	6	150	535	321	465	349	-	-	-	-	100x50x5
450	SACR-450		165	690	740						583	326	511	356	-	-	-	-	
500	SACR-500		180	740	790						636	333	561	366	-	-	-	-	
600	SACR-600-1		210	840	890						731	360	651	399	-	-	-	-	
650	SACR-650	225	890	940	774	365	692	406	-	-	-	-							
600	SACR-600-2	210	840	890	741	386	664	427	625	445	546	477							
750	SACR-750	114.3	265	1040	1090	870	401	797	449	754	470	665	523						
800	SACR-800		275	1090	1140	898	404	824	454	770	475	689	530						
900	SACR-900		315	1190	1240	1014	418	933	474	885	499	785	544						
1000	SACR-1000	139.8	350	1290	1340	1137	473	1045	535	992	563	880	613						
1050	SACR-1050		370	1340	1390	1195	480	1100	545	1045	575	928	527						
1200	SACR-1200		420	1490	1540	1339	497	1237	570	1177	603	1049	662						
1400	SACR-1400	165.2	500	1730	1790	1515	594	1413	676	1355	714	1220	782						
1600	SACR-1600		580	1930	1990	1718	617	1605	709	1542	752	1392	828						
1800	SACR-1800		650	2220	2280	1910	669	1788	771	1718	819	1553	904						
2000	SACR-2000		730	2420	2480	2103	689	1972	801	1896	853	1718	946						
2200	SACR-2200	-	800	2620	2680	-	-	2163	856	2081	914	1887	1016						
2400	SACR-2400		880	2820	2880	-	-	2382	896	2292	960	2080	1072						

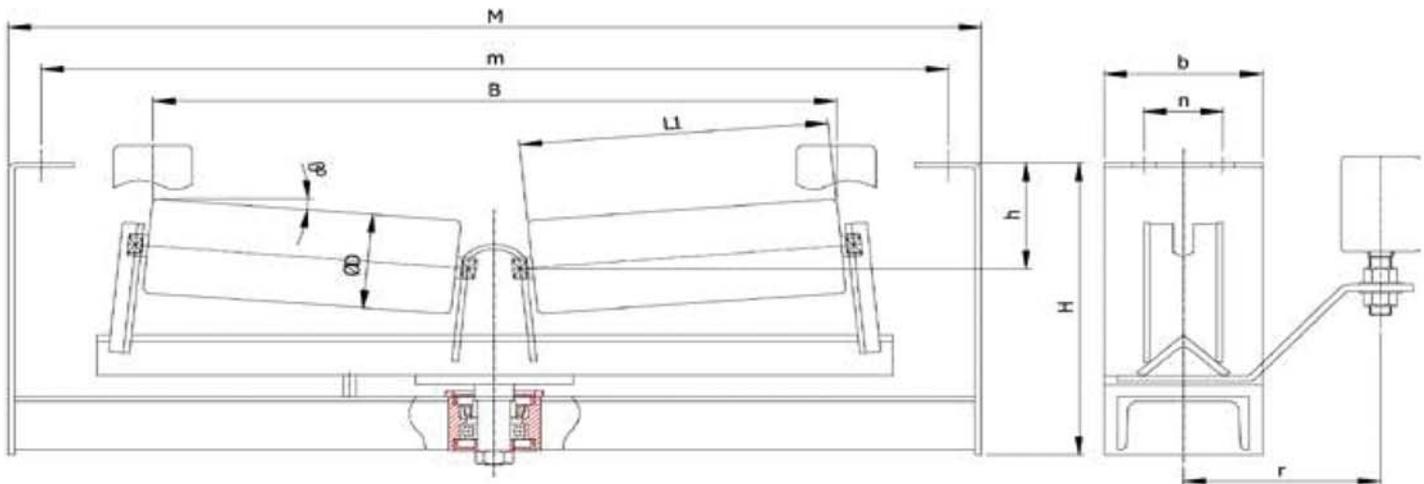
SELF ALIGNING RETURN



* Support roller for BW 1400-2400 Only

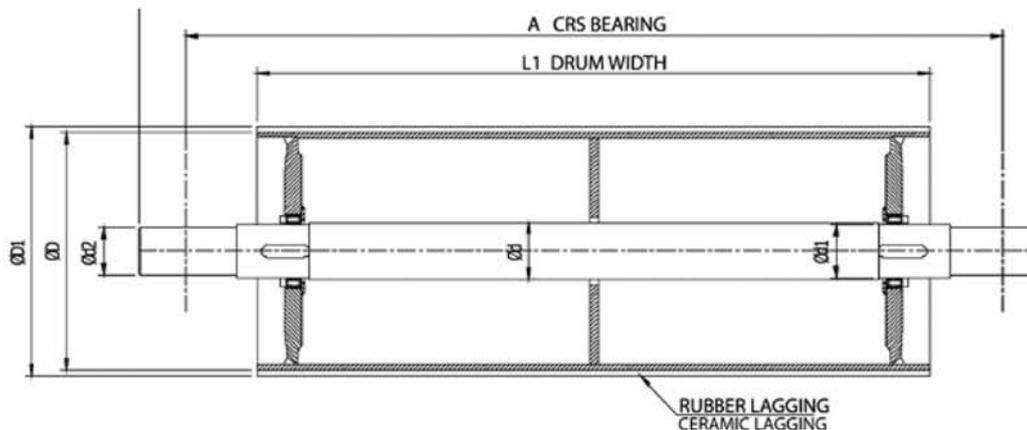
Belt Width	Type	Dimension										z	Channel		
		ØD	L1	m	M	h	n	b	t	r	H				
400	SARR-400	Ø 89.1	460	640	690	100	60	120	6	150	290	M12	100x50x5		
450	SARR-450		510	690	740										
500	SARR-500		560	740	790										
600	SARR-600-1	660	840	890	100	60	120	6	180	305					
650	SARR-650	710	890	940						335					
600	SARR-600-2	660	840	890											
750	SARR-750	Ø114.3	850	1040	1090	120	100	170	6	180	380			M16	150x75x6
800	SARR-800		900	1090	1140										
900	SARR-900		1000	1190	1240										
1000	SARR-1000	Ø139.8	1100	1290	1340	160	120	200	6	250	530			M20	200x80x7
1050	SARR-1050		1150	1340	1390										
1200	SARR-1200		1300	1490	1540										
1400	SARR-1400	Ø165.2	1510	1730	1790	180	150	250	9	250	560	M20	200x80x7		
1600	SARR-1600		1710	1930	1990										
1800	SARR-1800		2000	2220	2280										
2000	SARR-2000		2200	2420	2480										
2200	SARR-2200		2400	2620	2680										
2400	SARR-2400	2600	2820	2880											

SELF ALIGNING V-RETURN



Belt Width	Type	Dimension										z	Channel	
		ØD	L1	m	M	h	n	b	t	r	β=5°			
											B			H
400	SAVR-400	89.1	220	640	690	100	60	120	6	150	584	290	M12	100x50x5
450	SAVR-450		245	690	740						634			
500	SAVR-500		270	740	790						684			
600	SAVR-600-1		320	840	890						783			
650	SAVR-650		365	890	940						872			
600	SAVR-600-2	320	840	890	800	345								
750	SAVR-750	415	1040	1090	950									
800	SAVR-800	440	1090	1140	999									
900	SAVR-900	490	1190	1240	1099									
1000	SAVR-1000	540	1290	1340	1217		390							
1050	SAVR-1050	139.8	565	1340	1390	1267								
1200	SAVR-1200		640	1490	1540	1416		125x65x6						
1400	SAVR-1400	165.2	750	1730	1790	160	120	200	6	250	1614	550	M16	150x75x6
1600	SAVR-1600		850	1930	1990						1813			
1800	SAVR-1800		980	2220	2280						2022	570		
2000	SAVR-2000		1080	2420	2480						2222			
2200	SAVR-2200		1180	2620	2680						2431			
2400	SAVR-2400	1280	2820	2880	2630	M20	200x80x7							

DRUM PULLEY



OPTI-M produces a wide variety of pulleys which is designed with high quality to meet the standard of CEMA. Steel rim, hub, end disc are combined into an integral component by continuous welded bond to maximize pulley's strength, balance, and concentricity .

Drum pulley is designed by standard straight tube which can also designed with crown tube depended on customer's demand.

Standard design of pulley:

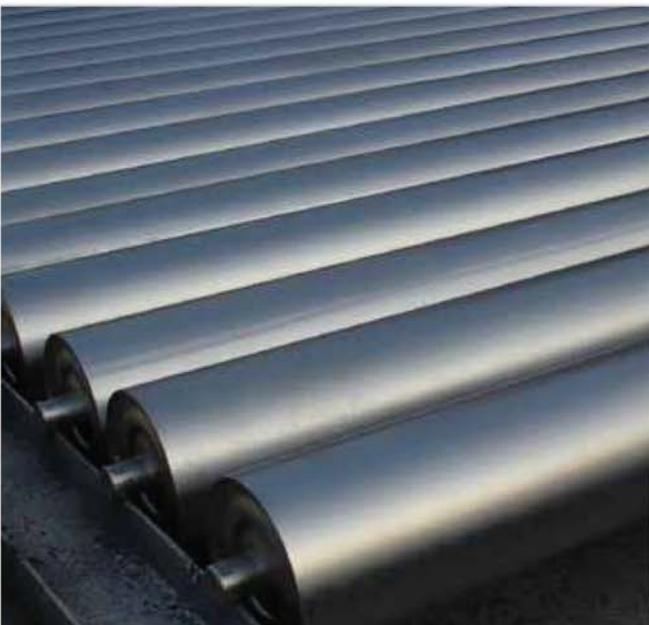
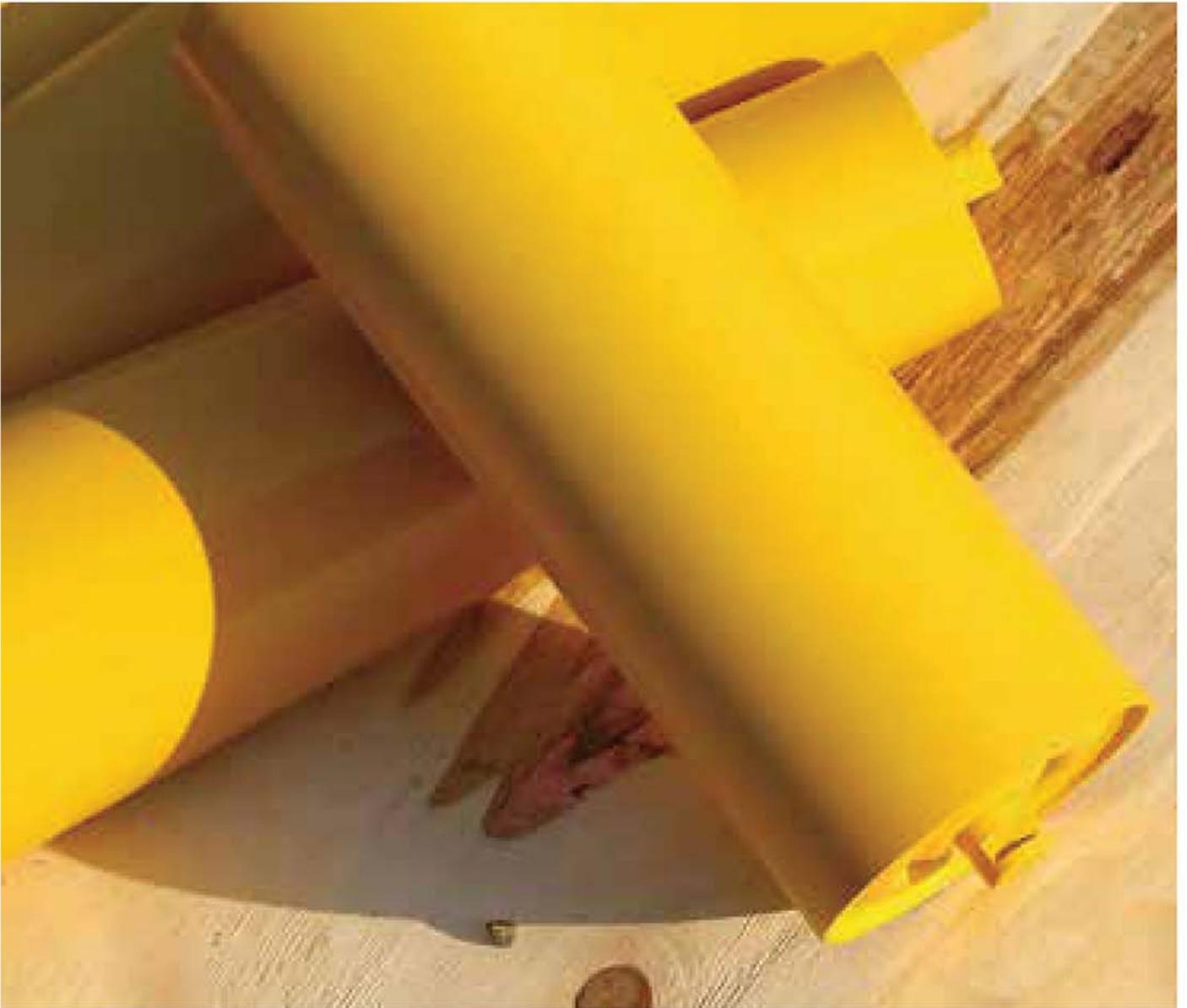
- Key type
- Power Lock
- Taper Lock

Lagging Type :

- Hot vulcanized lagging
- Ceramic lagging

Belt Width	Drum length of Pulley	
	mm	Inch
400	500	19
450	550	21
500	600	24
600	700	28
750	900	36
800	1000	39
900	1100	43
1000	1200	47
1050	1250	49
1200	1400	55
1400	1600	63
1600	1800	71
1800	2000	78
2000	2200	87
2200	2400	95
2400	2600	102





AUTHORIZED DISTRIBUTOR :



MOTION POWER AND SERVICES CO., LTD (RAYONG BRANCH)

TEL +66 38016999

🌐 www.motion.co.th ✉ sales9@motion.co.th
sales10@motion.co.th



MOTION POWER CO.,LTD (KORAT BRANCH)

TEL +66 44756092

🌐 www.motion.co.th ✉ sales3.mpk@motion.co.th
sales5.mpk@motion.co.th



RPM POWER TRANSMISSION CO., LTD

TEL +66 38212272

✉ sales@rpmpowertrans.com

