TROUGHING SETS

RULMECA®

MOVING AHEAD

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Rulmeca - Moving ahead.

Since its foundation in 1962, Rulmeca, headquartered in Bergamo (Almé), Italy, has grown to become one of the world's leading manufacturers of conveyor rollers/idlers, motorized pulleys, fabricated pulleys and other components for the bulk handling industry. 1,200 employees in seventeen production and sales companies around the globe serve clients in 85 countries.

Today, Rulmeca Group's global business incorporates the product brands Rulmeca, Precismeca and Melco. All three of them specialize in the supply of long-lasting premium belt conveyor components. Rulmeca Group products are developed and produced to meet the most demanding everyday challenges of all major bulk handling applications: coal and lignite mining, cement, steel, quarries, tunneling, power plant installations, ports, salt and fertilizers, sugar plants, recycling and demolition, crushing and screening.

The close partnership with our customers, OEMs, engineering companies and end users has made us one of the most trusted brands in the industry. As a family-owned business with a long-term perspective, our combination of traditional values and openness to innovation continues to be one of our key success factors.

This is also seen in our consistent environmental and social responsibility throughout the value chain. We are committed to the continuous improvement of our range, often considered among the best in the market.

Our research departments are equipped with state-of-the-art test facilities, where our products are thoroughly examined under extreme conditions.

Every day and on all continents, Rulmeca products improve the performance, safety and reliability of systems, equipment and machines within the bulk handling industry. Whatever your materials handling problem might be, talk to us. We have the expertise, the experience – and the products you need.

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1.1. INTRODUCTION

In a belt conveyor one may identify two types of troughing sets: the upper carrying sets, that have the function to support the loaded sections of the belt and to move the material and the lower sets that support the unloaded belt on its return section.

The upper troughing sets may basically be in two arrangements: flat, with a single horizontal roller generally supported by two fixed brackets from the convey or structure troughed, generally with 3 rollers supported within a frame which is itself fixed to the conveyor structure.
There may be then, in the loaded sections, impact troughing sets with rollers with rubber rings or suspended “garland” sets with 3 or 5 rollers.

In the majority of belt conveyors, the upper troughing sets are used in a troughing arrangement, so that the carrying belt may transport a much greater amount of material than it could if the belt was flat, assuming an equal belt width and speed.The rollers of an upper troughing set are undoubtedly the most important components to be considered during the project phase.

1.2. CHOICE OF TROUGHING SETS

When choosing the troughing sets and their arrangements during the project phase of the construction of a belt conveyor the following factors must be considered:

- total load capacity in tons/hour of conveyed material
- belt speed
- belt, single directional or reversible
- lump size of material and its angle of repose
- temperature and environmental challenge
- characteristics of load, humidity and material abrasiveness
- type, flexibility and weight of rubber belt.

The development of detail concerning the above considerations is contained in chapter 1 - technical information.

Defining the belt width, in relation to the flow of conveyed material and establishing the speed, allows the choice to be made of the type of transom support and the correct roller series, matching the working conditions.

Above all when the rollers are subjected to a corrosive environment or materials (salt, chemical substances, etc.) very careful attention should be paid in their choice.

In the same way the transoms that carry the rollers must be protected with a suitable galvanised treatment.

The weight of the material determines the dynamic load which the troughing set has to sustain and also defines the pitch of the sets in the upper carrying sections of the belt.

In practice the type of troughing set is chosen that meets the criteria of load together with the use of the minimum rubber belt width to provide the most economic solution.

The choice of the return sets is also important, in that they take account of the belt centralising and cleaning conditions.

In fact on the return sets the rollers are in contact with the dirty side of the belt and thus face a variety of problems.

The residual material remains attached to the return section of the belt and may deposit onto the rollers in a non uniform way that promotes belt drifting and premature wear.

This material may act to abrade the roller shell in a serious way and place a critically high demand on the protection qualities of the sealing system of the roller bearings.

Therefore the solution must be to put in place the very best belt cleaning system, utilising the auto centralising system (self centering troughing sets) and in the use of rollers with rubber rings that permits residual material to fall freely to the ground without build-up on the rollers.
The conveyed material deposits onto rollers and increases their diameter in an uneven way, usually less at the roller ends.

To choose the right troughing sets to suit the load see the chapter on rollers “Dynamic Load, on the carrying sets Ca1, on the return sets Cr1”. The load on the troughing set is given by the material load added to the weight of rollers; and using the transom may be chosen, that has a greater load capacity than the load thus calculated; finally adding the weight of the transom itself, taking account the roller capacity and diameter that may be utilised in the frame and the following general considerations:

- the load capacity of the transom is given by the admissible load on the tubular leaving aside the type of attachments and the characteristics of the side and central bracket supports.

- the transoms T2L, T3M, T3P, belong to the light and medium series and are fixed to the structure by means of a single hole per side. Their side supports are relatively light and are used therefore on conveyors with regular loads and small lump size of material and low speed so that damaging vibrations are avoided.

They are preferably not to be used at the loading points as impact sets especially when large lump size material exists and the loading heights are excessive.

- the transoms T3P, form the heavy series for the iron and steel industry and are fixed to the structure by plates with two holes in each plate, and have side brackets reinforced by shaping them as channels. They are therefore more adapted to be used in the transport of irregular loads, large material lump size, high speeds even if in the presence of vibrations.

They are most suitable for the positioning of the heaviest roller series up to the maximum capacities designed.

CHOICE OF THE TRANSOM IN RELATION TO LOAD

1.2.1 - Choice of the transom in relation to load

Belt width mm	T2L (upper troughing set with 2 rollers) 20°	T3M (light upper troughing set with 3 rollers) 20°-30°-35°-45°	
300	**338** (Ø60-Ø110)		
400	**286** (Ø60-Ø110)	**286** (Ø76-Ø110)	
500	**205** (Ø60-Ø110)	**247** (Ø76-Ø140)	
650	**167** (Ø60-Ø110)	**205** (Ø76-Ø140)	**354** (Ø89-Ø140)
800	**167** (Ø60-Ø110)	**167** (Ø76-Ø110)	**289** (Ø89-Ø159)
1000			
1200			
1400			
1600			
1800			
2000			
2200			

Load capacity daN								
Belt width mm	T3P (medium upper troughing set with 3 rollers 800-1600 and heavy upper troughing set with 3 rollers 1800-2200) 20°-30°-35°-45°				R2T (return set “V”) ((Ø89-(Ø194) 10°	
300						
400						
500						
650						354
800	**460** (Ø89-Ø159)					289
1000	**388** (Ø89-Ø159)		**581** (Ø140-Ø159)			388
1200	**325** (Ø89-Ø159)	**487** (Ø140-Ø159)	**634** (Ø140-Ø159)			325
1400	**288** (Ø140-Ø159)	**431** (Ø140-Ø159)	**561** (Ø140-Ø159)	**710** (Ø140-Ø159)	**561**	431
1600	**387** (Ø140-Ø159)	**503** (Ø140-Ø159)	**637** (Ø140-Ø159)	**753** (Ø194)	**503**	387
1800	**446** (Ø140-Ø194)		**667** (Ø140-Ø194)		**446**	342
2000	**604** (Ø159-Ø194)		**909** (Ø159-Ø194)			604
2200	**558** (Ø159-Ø194)		**840** (Ø159-Ø194)			560

1.3. ARRANGEMENTS

According to the requirements of the specific project, different arrangements of transoms have been designed. These may be separated into fixed and suspended transoms.

In belt conveyors there are two basic types of troughing sets: that of the carrying set, which supports the belt on the loaded section, known as the upper troughing set; and that of the return set, which supports the empty belt on its return section.

A particular category of troughing sets is that known as the impact set which is positioned to correspond to the section where the belt is loaded with material.

1.3.1. Upper carrying troughing sets

The drawings illustrate the arrangements of fixed carrying troughing sets with plain or impact rollers Fig. 1, and the suspended troughing set “garland” Fig. 2.
The carrying troughing sets of three rollers are designed as standard for single directional belts, and for this reason have a slight forward inclination of two degrees in the position of the side rollers.
This assists the belt tracking by an auto-centralising effect.
For reversible belts the version R is required, which is without the above two degrees (see “order codes” para. 1.3.3).

Fig. **1** - Fixed troughing sets

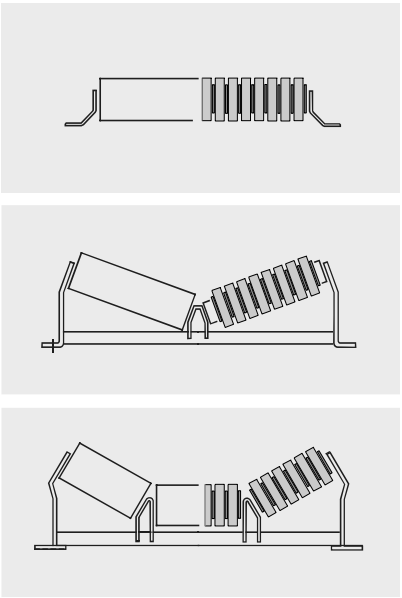
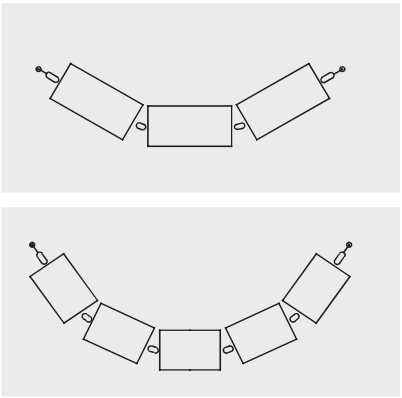


Fig. **2** - “Garland” sets



1.3.2. Return sets

The lower or return sets may also be chosen from varying arrangements according to the requirement: fixed sets with plain steel roller or with spacer rings Fig. 3 and suspended sets “garland” with plain rollers and with rings Fig. 4.

Fig. **3** - Fixed sets

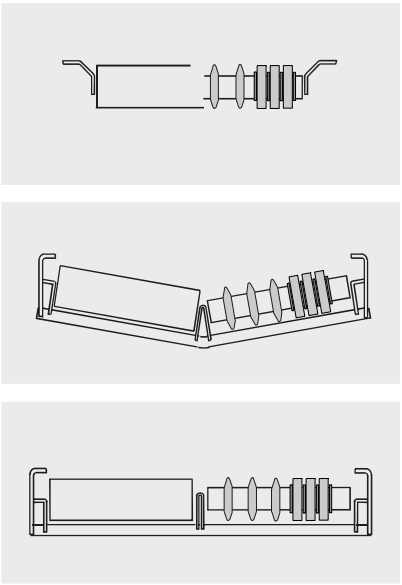
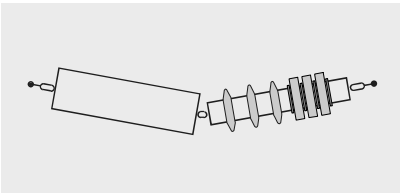
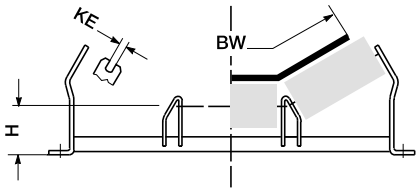


Fig. **4** - “Garland” sets



1.3.3 Order codes



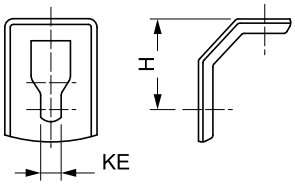
TRANSOMS ARTICLE CODE is composed by the following data:

Example:	Transom	T3P	1000	35°	SZ4	KE22	H186	YC	R

Series
Belt Width mm 300 ÷ 2200
Throughing angle deg. 20° 30° 35° 45°
Beam Size SZ 1-2-3-4-5-6-7
Across Flat Key KE mm refers to the roller's across flat width (ch. AF, SW...)
Height H mm of roller axis from ground
Type of finish (see table below)
Tilt angle
- with side rollerstilt angle, for one-way belt
R no tilt angle, for reversible belt (symmetrical)

BRACKETS ARTICLE CODE is composed by the following data:

Example:	Support	SPT	1490	KE18	H100	Z



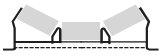
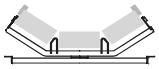
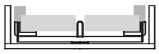
Series
Type
Across Flat key KE mm refers to the roller's across flat width (ch. AF, SW...)
Height H mm of roller axis from ground
Type of finish (see table below)

TYPE OF FINISH OF TRANSOM AND BRACKETS	
Code	**Description of treatment**
-	WT without treatment, raw
YA	Painted: one hand antirust primer, zinc phosphate based 40 micron, colour grey (no RAL)
YB	Painted: sandblasted SA 2,5 + epoxy rich-zinc primer 70 micron (min. 80%), colour grey, (no RAL), over-paintable
YC	Painted: sandblasted SA 2,5 + epoxy rich-zinc primer 40 micron + epoxy enamel 60 micron, colour grey RAL 7035, over-paintable
YS	Special paint cycle (to be specified)
Z*	Hot dip zinc galvanized - min. 70 microns - EN ISO 1461
*	Z for self-centering t is made by hot dip zinc thermal spraying, acc. to European Norm EN ISO 2063

1.3.4 - Programme of transoms and brackets

The production programme of frames and supports indicated in the table is related to the standard production according to the Unified Standards DIN 22107.

On request they can be supplied in different shapes and dimensions according to the standards CEMA, BS, JIS, AFNOR and ISO-FEM.

Series	Arrangements	Descriptions
T2L 20°		upper transom for two rollers
T3M BW 400-800 20° - 30° - 35° - 45° **T3P BW 800-1600** 20° - 30° - 35° - 45 **T3P BW 1800-2200** 20° - 30° - 35° - 45°		upper transom for three rollers
SPT 1657 - 1660 **SPT 070** **SPT 1795**		upper brackets for one roller
SPT 1478 - 1490 **SPT 243** **SPT 1495**		lower return brackets for plain roller
R2T 10°		transom for two return rollers “V”
CT3M **CT3P**		upper self-centering transom for three rollers
Q1 L **Q1 P**		lower self-centering return transom for one roller
Q2 L **Q2 P**		lower self-centering return transom for two rollers

1.4. SELF-CENTERING TROUGHING SETS

Sometimes the difficult working conditions of the plant results in a lateral movement of the belt. In this case a self-centering troughing set is used which acts in a way that corrects the belt tracking and maintains it constantly in the central position.

The self-centering troughing set is designed as a series of rollers arranged in a trough positioned onto the supporting transom which itself is fixed to a slewing ring Fig. 5 which permits rotation.

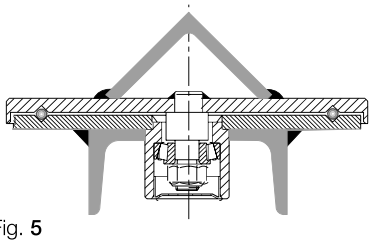


Fig. **5**

The slewing ring (a large ball bearing) permits a rotation limited to 5-8 degrees and is sized in proportion to the vertical loading; a tapered roller bearing assembled to the shaft of the slewing ring, absorbs any side forces or overturning pressures.

The installation of the self-centering troughing sets is advised to be positioned on the upper strand rather than the return section, and used only when the working conditions require.

Warning: the rollers supporting the belt in the self-centering sets must not have any rubber ring.
In case of material high abrasion, on return self-centering sets, hot vulcanized rubber lagged rollers can be used.

Self - centering troughing set for loaded strand of belt.
The self-centering troughing sets are designed and manufactured in a way that allows them to be entirely interchangeable with the normal transom.

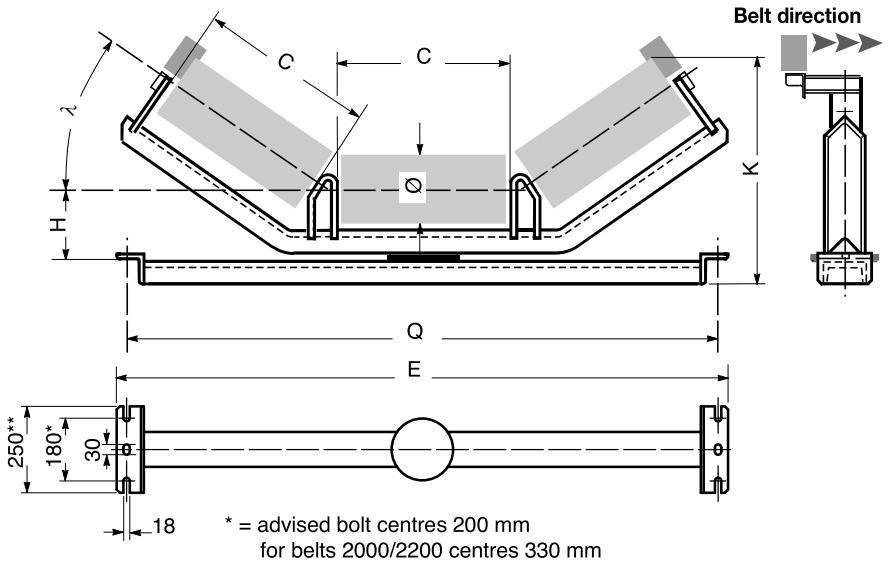
Normally it is a good standard to install them at an approximate distance of 15 metres from the pulley and at a pitch of about 30 m.

It is not advised to use self-centering troughing sets on very short conveyors.

The self-centering troughing sets are designed in 3 different versions: model S, with rigid arm; model F, with pivoting arm with brake; model R, with centralised pivoting arm with brake, for reversible belts.

SELF-CENTERING TRANSOM MODEL S

Without brake for single directional belt



* = advised bolt centres 200 mm
for belts 2000/2200 centres 330 mm

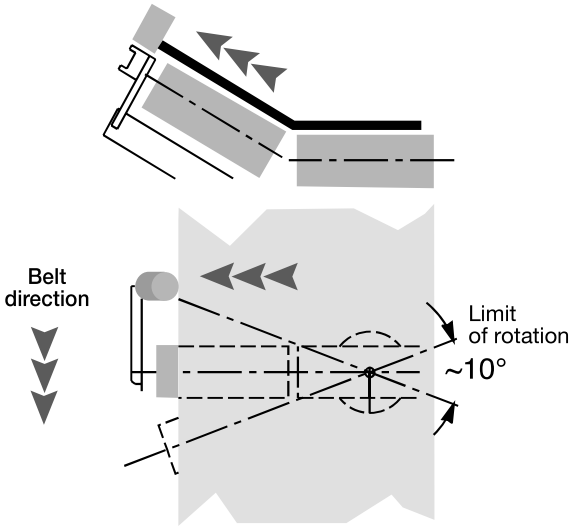
** = 450 for belts from 2000/2200

Carrying rollers and guide rollers type PSV/G7-NCD 20M16 60N 100 have to be ordered separately.

Characteristics and dimensions are similar to the corresponding fixed carrying transom.

Method of operation Model S

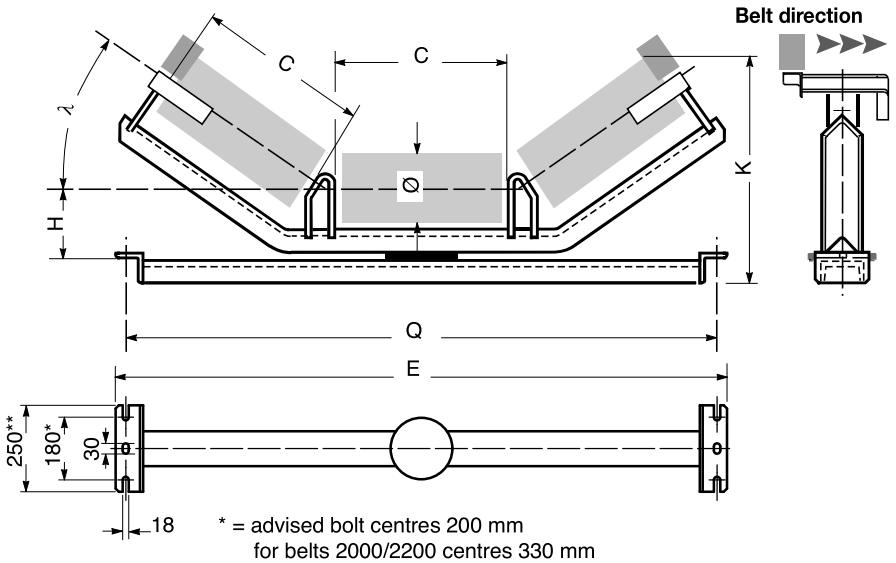
The system is very simple comprising a rigid lever arm, on which is positioned a belt guide roller.
The pressure exerted by the edge of the belt when tracking off, acts against the offset guide roller which in turn rotates the transom by an angle that encourages the belt to return centrally.
This model is used on small or medium single directionall belts, where the tendency to track off is not excessive.



Example of ordering:
CT3PS 800 30° SZ03 KE14 H166 WT
See page 14.

SELF-CENTERING TRANSOM MODEL F

With brake for single directional belt



* = advised bolt centres 200 mm
for belts 2000/2200 centres 330 mm

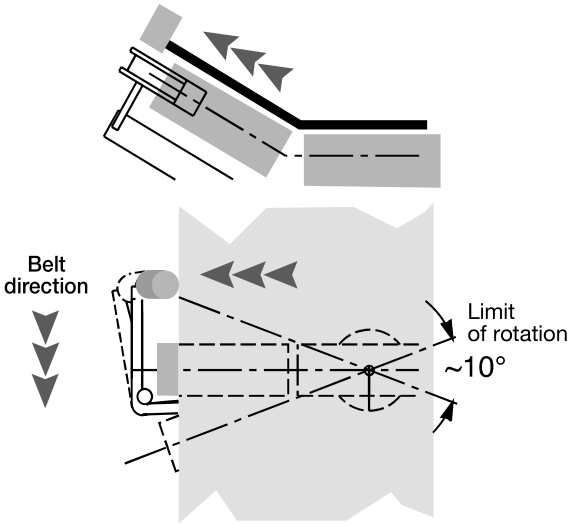
** = 450 for belts from 2000/2200

Carrying rollers and guide rollers type PSV/G7-NCD 20M16 60N 100 have to be ordered separately.

Characteristics and dimensions are similar to the corresponding fixed carrying transom.

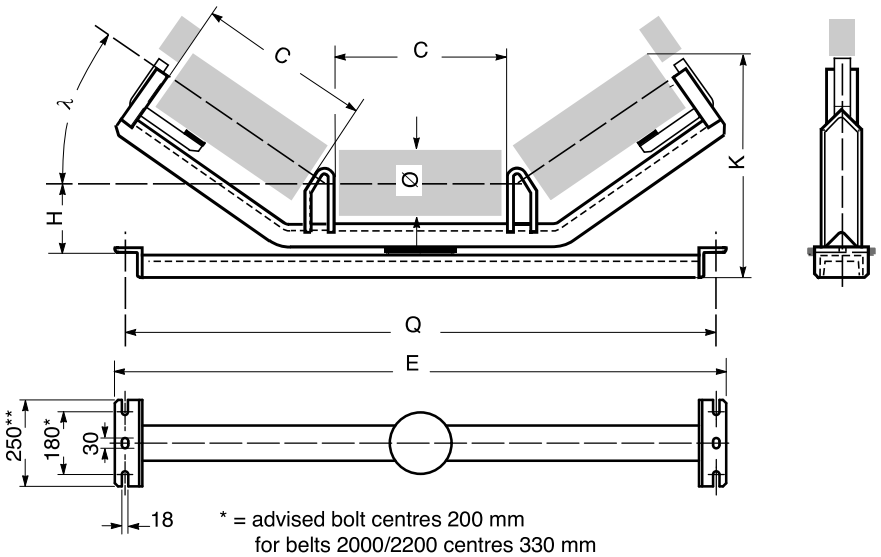
Method of operation Model F

In this design the lever arm pivots, transmitting a force produced by the belt on to the offset guide roller which in turn causes a brake to be applied to the side support roller. This braking action together with the side belt force itself on the lever arm (as with model S) generates a force that rotates the transom and encourages the belt to return centrally. Model F with brake, is normally used on very long single directional belts, where large material lumps and side or very irregular loading is experienced leading to a big centralising problem.



SELF-CENTERING TRANSOM MODEL R

With brake for reversible belt



* = advised bolt centres 200 mm
for belts 2000/2200 centres 330 mm

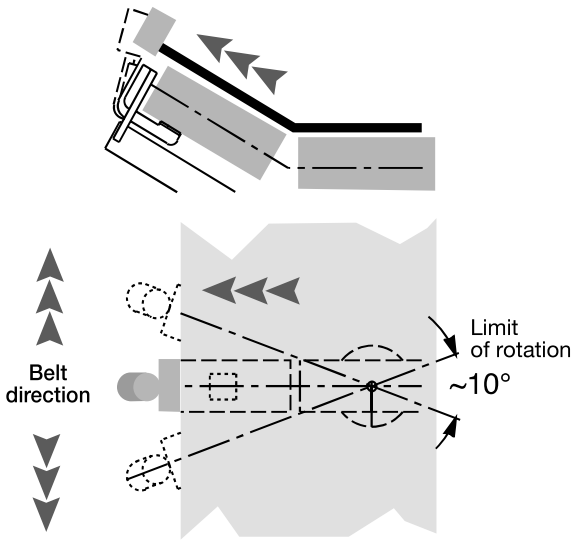
** = 450 for belts from 2000/2200

Carrying rollers and guide rollers type PSV/G7-NCD 20S18 60N 100 have to be ordered separately.

Characteristics and dimensions are similar to the corresponding fixed carrying transom.

Method of operation Model R

In reversible conveyors a double action is needed to suit either belt direction. Model R acts on the same principle of braking as model F, but in this design the lever arm is on the same centre line as the rollers. The action of the braking effect is to rotate the transom, encouraging the belt to the centre. Thanks to the centralised arrangement the system functions in either direction of belt movement.



CT3M SERIES

SELF CENTRALIZING TRANSOM - CT3M

Transom ordering code							For rollers		Transom			K max				Weight without rollers all troughing angles		
Series	Belt width mm	Troughing angle deg.°	Beam size SZ	Across Flat key KE mm	H mm	Finishing	Ø mm	Length C mm	Load capacity kg	Q mm	E mm	20° mm	30° mm	35° mm	45° mm	Type S kg	Type F kg	Type R kg
CT3M S, R, F	400	20° - 30° 35° - 45°	1	14 - 17 18 - 22 30	121	-, YA, YB, YC, YS, Z	76	168	286	640	700	229	255	268	289	14,2	14,7	16,9
					126		89-90	168	286	640	700	229	256	268	290	14,2	14,7	16,9
					131		102	168	286	640	700	229	255	268	289	14,6	14,7	17,5
					136		108-110-114	168	286	640	700	250	275	287	308	14,9	14,7	17,5
	500		1		121		76	208	247	740	800	243	275	291	317	15,6	16,1	18,3
					126		89-90	208	247	740	800	243	275	291	318	15,6	16,1	18,3
					131		102	208	247	740	800	243	275	291	317	16,0	16,1	18,9
					136		108-110-114	208	247	740	800	263	295	309	337	16,3	16,1	18,9
					146		127-133-140	208	247	740	800	287	318	333	361	16,4	16,2	19,0
	650		1		121		76	258	205	890	950	260	300	320	353	17,6	18,1	20,3
					126		89-90	258	205	890	950	260	300	320	353	17,6	18,1	20,3
					131		102	258	205	890	950	260	300	320	353	18,0	18,1	20,9
					136		108-110-114	258	205	890	950	280	320	338	372	18,3	18,1	20,9
					146		127-133-140	258	205	890	950	304	343	362	396	18,5	18,3	21,1
			2		138		89-90	258	354	890	950	272	312	332	365	19,5	20,0	22,2
					148		108-110-114	258	354	890	950	292	332	350	384	20,2	20,0	22,8
					158		127-133-140	258	354	890	950	316	355	374	408	20,3	20,1	22,9
	800		1		121		76	323	167	1090	1150	292	332	357	399	20,3	20,8	23,0
					126		89-90	323	167	1090	1150	282	333	357	399	20,3	20,8	23,0
					131		102	323	167	1090	1150	292	332	357	399	20,7	20,8	23,6
					136		108-110-114	323	167	1090	1150	303	353	375	418	21,0	20,8	23,6
			2		138		89-90	323	289	1090	1150	294	345	369	411	22,5	23,0	25,2
					148		108-110-114	323	289	1090	1150	315	365	387	430	23,2	23,0	25,8
					158		127-133-140	323	289	1090	1150	339	388	411	454	23,3	23,1	25,9
					178		152-159	323	289	1090	1150	370	420	442	487	23,7	23,7	26,3

*** = insert the transom model: S=with rigid arm, F=with pivoting arm with brake, R=reversible**
At order time please specify the height H, related to the corresponding upper transom selected.

Carrying rollers and guide rollers (PSV/G7-NCD 20M16 60N 100 for model F and S, PSV/G7-NCD 20S18 60N 100 for model R) have to be ordered separately.

CT3P SERIES

SELF CENTRALIZING TRANSOM - CT3P BW 800-1600

Transom ordering code							For rollers		Transom			K max				Weight without rollers all troughing angles		
Series	Belt width mm	Troughing angle deg.°	Beam size SZ	Across Flat key KE mm	H mm	Finishing	Ø mm	Length C mm	Load capacity kg	Q mm	E mm	20° mm	30° mm	35° mm	45° mm	Type S kg	Type F kg	Type R kg
CT3P S, R, F	800	20° - 30° 35° - 45°	3	14 - 18 22 - 30 32	146	-, YA, YB, YC, YS, Z	89-90	323	460	1090	1150	302	353	377	419	25,1	27,8	27,8
					156		108-110-114	323	460	1090	1150	323	373	395	438	25,8	28,4	28,4
					166		127-133-140	323	460	1090	1150	347	396	419	462	25,9	28,5	28,5
					186		152-159	323	460	1090	1150	378	428	450	495	26,3	28,9	28,9
	1000		3		146		89-90	388	388	1290	1350	324	385	414	465	28,5	31,2	31,2
					156		108-110-114	388	388	1290	1350	345	405	433	484	29,2	31,8	31,8
					166		127-133-140	388	388	1290	1350	369	428	456	508	29,3	31,9	31,9
					186		152-159	388	388	1290	1350	400	460	487	541	29,7	32,3	32,3
			4		166		127-133-140	388	581	1290	1350	369	428	456	508	35,4	35,3	35,3
					186		152-159	388	581	1290	1350	369	428	456	508	35,8	35,8	35,8
	1200		3		146		89-90	473	325	1540	1600	354	428	463	525	32,8	35,5	35,5
					156		108-110-114	473	325	1540	1600	374	448	481	544	33,5	36,1	36,1
					166		127-133-140	473	325	1540	1600	398	471	505	568	33,6	36,2	36,2
					186		152-159	473	325	1540	1600	429	503	536	601	34,0	36,6	36,6
			4		166		127-133-140	473	487	1540	1600	398	471	505	568	40,8	40,3	40,3
					186		152-159	473	487	1540	1600	429	503	536	601	41,2	40,7	40,7
			5		184		127-133-140	473	634	1540	1600	416	489	523	586	48,9	45,5	45,5
					204		152-159	473	634	1540	1600	447	521	554	619	49,3	46,0	46,0
	1400		3		166		127-133-140	538	288	1740	1800	420	503	542	614	37,0	39,6	39,6
					186		152-159	538	288	1740	1800	451	535	573	647	37,4	40,0	40,0
			4		166		127-133-140	538	431	1740	1800	420	503	542	614	51,6	44,1	44,1
					186		152-159	538	431	1740	1800	451	535	573	647	52,0	44,5	44,5
			5		184		127-133-140	538	561	1740	1800	438	521	560	632	54,0	50,0	50,0
					204		152-159	538	561	1740	1800	469	553	591	665	54,4	50,5	50,5
			6		184		127-133-140	538	710	1740	1800	438	521	560	632	61,0	59,0	59,0
					204		152-159	538	710	1740	1800	469	553	591	665	61,4	59,4	59,4
	1600		4		166		127-133-140	608	387	1940	2000	444	538	582	664	56,5	48,1	48,1
					186		152-159	608	387	1940	2000	475	570	613	696	57,0	48,5	48,5
			5		184		127-133-140	608	503	1940	2000	462	556	600	682	59,2	54,7	54,7
					204		152-159	608	503	1940	2000	493	588	631	714	59,6	55,1	55,1
					234		165-168-178-180-194	608	503	1940	2000	540	633	678	758	60,2	56,2	56,2
			6		184		127-133-140	608	637	1940	2000	462	556	600	682	75,6	64,5	64,5
					204		152-159	608	637	1940	2000	493	588	631	714	76,1	64,9	64,9
					234		165-168-178-180-194	608	753	1940	2000	540	633	678	758	76,6	66,0	66,0

*** = insert the transom model: S=with rigid arm, F=with pivoting arm with brake, R=reversible**
At order time please specify the height H, related to the corresponding upper transom selected.

Carrying rollers and guide rollers (PSV/G7-NCD 20M16 60N 100 for model F and S, PSV/G7-NCD 20S18 60N 100 for model R) have to be ordered separately.

CT3P SERIES

SELF CENTRALIZING TRANSOM - CT3P BW 1800-2200

Transom ordering code							For rollers		Transom			K max				Weight without rollers all troughing angles		
Series	Belt width mm	Troughing angle deg.°	Beam size SZ	Across Flat key KE mm	H mm	Finishing	Ø mm	Length C mm	Load capacity kg	Q mm	E mm	20° mm	30° mm	35° mm	45° mm	Type S kg	Type F kg	Type R kg
CT3P S, R, F	1800	20° - 30° 35° - 45°	5	18 - 22 32	184	-, YA, YB, YC, YS, Z	127-133-140	678	446	2190	2250	488	593	642	733	70,7	57,1	59,9
					204		152-159	678	446	2190	2250	519	625	674	765	71,1	57,7	60,3
					234		165-168-178 180-194	678	446	2190	2250	565	670	720	809	71,7	58,3	61,5
			6		184		127-133-140	678	667	2190	2250	488	593	642	733	83,3	67,9	70,7
					204		152-159	678	667	2190	2250	519	625	674	765	83,7	68,5	71,1
					234		165-168-178 180-194	678	667	2190	2250	565	670	720	809	84,2	69,1	72,3
	2000		6		204		152-159	758	604	2420	2500	546	665	719	822	104,5	75,1	77,7
					234		165-168-178 180-194	758	604	2420	2500	593	710	766	866	105,0	75,7	78,9
			7		219		152-159	758	909	2420	2500	559	678	732	835	133,1	97,4	100,0
					249		165-168-178 180-194	758	909	2420	2500	606	723	779	879	133,6	97,9	101,1
	2200		6		204		152-159	808	558	2620	2700	563	688	748	857	111,1	79,9	82,5
					234		165-168-178 180-194	808	558	2620	2700	610	735	795	901	111,6	80,4	83,6
			7		219		152-159	808	840	2620	2700	576	701	761	870	141,3	103,5	106,1
					249		165-168-178 180-194	808	840	2620	2700	623	748	808	914	141,8	104,0	107,2

*** = insert the transom model: S=with rigid arm, F=with pivoting arm with brake, R=reversible**
At order time please specify the height H, related to the corresponding upper transom selected.

Carrying rollers and guide rollers (PSV/G7-NCD 20M16 60N 100 for model F and S, PSV/G7-NCD 20S18 60N 100 for model R) have to be ordered separately.

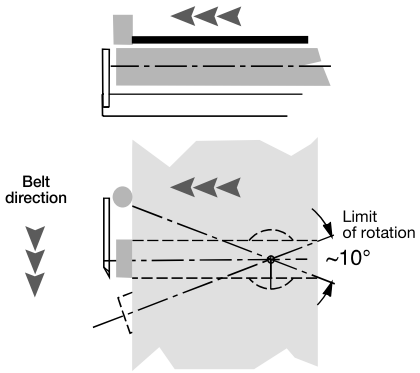
SELF-CENTERING TROUGHING SETS FOR RETURN BELT

Sometimes even on the return section it is necessary to correct the tracking of the movement of the belt. As with the upper section, the return section self-centering troughing set excercises a corrective action on the belt.

The method of function is similar to that of the upper self-centering troughing set. Normally it is a good standard to install them at an approximate distance of 25 metres from the pulley and at a pitch of about 50m.

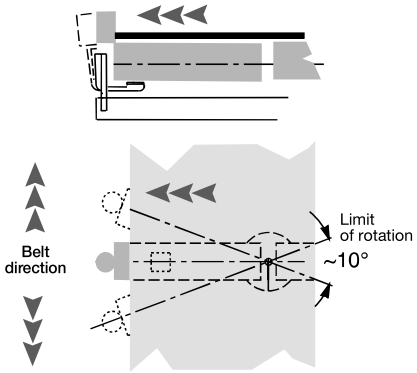
Warning: the rollers supporting the belt in the self-centering sets, must not have any rubber ring. In case of material high abrasion, on return self-centering sets, hot vulcanized rubber lagged rollers can be used.

Model S (Q1)



Model S
Standard version for single directional conveyor belt with single roller and fixed lever arm with offset guide roller.
Guide rollers type PSV/G7-NCD 20M16 60N 100 to be ordered separately.

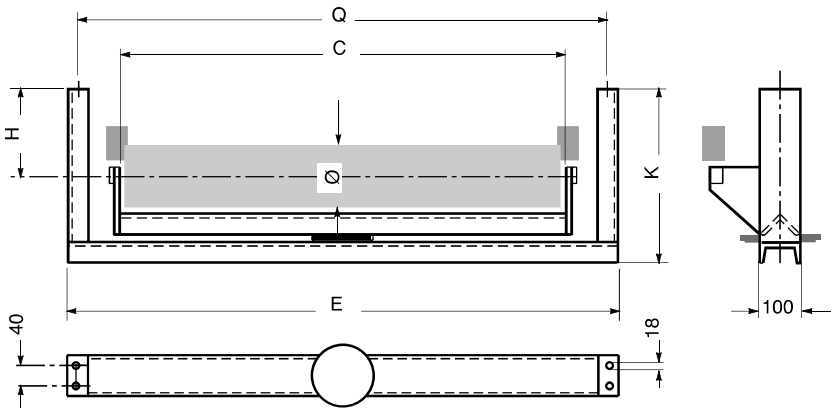
Model R (Q2)



Model R
Special version used on reversible belt, using two rollers and pivoting lever arms with the brake and guide roller located in line.
Guide rollers type PSV/G7-NCD 20S18 60N 100 to be ordered separately.

TRANSOM SELF-CENTERING MODEL S
Q1 L - Q1 P

Return model with fixed lever-arm for single directional belts.
Guide rollers type PSV/G7-NCD 20M16 60N 100 have to be ordered separately.



Q1 L for rollers series

MPS	PSV/1-FHD
ø 76, 89, 102	ø 89,108,133
spindle 15	spindle 20
bearing 6202	bearing 6204
ch = 17	ch = 14

Q1 P for rollers series

PSV/2-FHD	PSV/4-FHD
ø 133	ø 159
spindle 25	spindle 30
bearing 6205	bearing 6206
ch = 18	ch = 22

Belt width mm	Roller			Self-centering transom					Weight without rollers Kg
	Ø	C	ch	Capacity kg	H mm	K mm	Q	E	
	mm								
400	76- 89-102 108-133	508	14 - 17	175	70	259	640	700	20.8
500		608		143	70	259	740	800	22.2
650		758		197	70	267	890	950	25.9
800		958		158	70	267	1090	1150	29.1
1000		1158		209	70	275	1290	1350	34.7
1200		1408		167	70	275	1540	1600	39.2

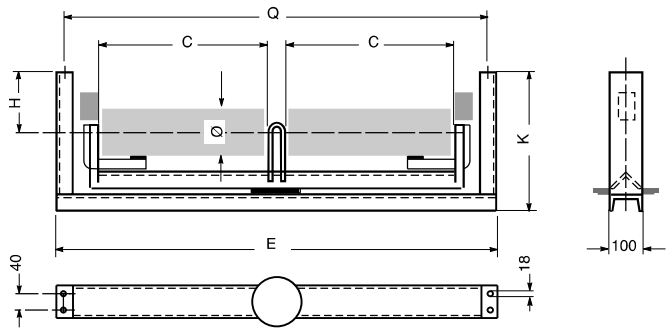
Belt width mm	Roller			Self-centering transom					Weight without rollers Kg
	Ø	C	ch	Capacity kg	H mm	K mm	Q	E	
	mm								
800	133	958	18 - 22	158	150	367	1090	1150	32.9
1000		1158		209	150	375	1290	1350	38.6
1200		1408		167	150	375	1540	1600	43.1
1400		1608		227	150	389	1740	1800	50.5
1600		1808		202	150	389	1940	2000	54.6
800	159	958	18 - 22	158	150	387	1090	1150	34.2
1000		1158		209	150	395	1290	1350	39.9
1200		1408		167	150	395	1540	1600	44.4
1400		1608		227	150	409	1740	1800	52.0
1600		1808		202	150	409	1940	2000	55.9

Return roller and guide rollers type PSV/G7-NCD 20M16 60N 100 have to be ordered separately

Example of ordering
Q1L, 800, F 14, 108
Q1P, 1000, F 18, 133, YA
See page 14.

TRANSOM SELF-CENTERING MODEL R
Q2 L - Q2 P

Return model with pivoting lever-arm and brake for reversible belts.
Guide rollers type PSV/G7-NCD 20S18 60N 100 have to be ordered separately.



Belt width mm	Roller Ø	Roller C mm	Roller ch	Self-centering transom Capacity kg	H mm	K mm	Q	E	Weight without rollers Kg
400	76- 89-102 108-133	198	14 - 17	175	70	259	640	700	22.7
500		248		143	70	259	740	800	24.1
650		323		197	70	267	890	950	27.1
800		408		158	70	267	1090	1150	30.8
1000		508		209	70	275	1290	1350	36.4
1200		608		167	70	275	1540	1600	40.5

Belt width mm	Roller Ø	Roller C mm	Roller ch	Self-centering transom Capacity kg	H mm	K mm	Q	E	Weight without rollers Kg
800	133	408	18 - 22	158	150	367	1090	1150	33.2
1000		508		209	150	375	1290	1350	38.8
1200		608		167	150	375	1540	1600	43.0
1400		708		296	150	389	1740	1800	52.3
1600		808		262	150	389	1940	2000	56.6
800	159	408	18 - 22 - 32	158	150	387	1090	1150	34.3
1000		508		209	150	395	1290	1350	39.9
1200		608		167	150	395	1540	1600	44.1
1400		708		296	150	409	1740	1800	53.4
1600		808		262	150	409	1940	2000	57.7
1800	159-194	908		351	175	473	2190	2290	87.5
2000		1008		318	175	473	2420	2520	94.2
2200		1108		440	175	490	2620	2720	117.1

Q2 L for rollers series

MPS ø 76, 89, 102 spindle 15 bearing 6202 ch = 17	**PSV/1-FHD** ø 89,108,133 spindle 20 bearing 6204 ch = 14

Q2 P for rollers series

PSV/2-FHD ø 133 spindle 25 bearing 6205 ch = 18	**PSV/4-FHD** ø 159 spindle 30 bearing 6206 ch = 22
PSV/7-FHD ø 159, 194 spindle 40 bearing 6308 ch = 32	

Return roller and guide rollers type PSV/G7-NCD 20S18 60N 100 have to be ordered separately.

Example of ordering
Q2L, 1000, F 14, 133, YA
Q2P, 1200, F 18, 159, YB
See page 14.

1° ED BULK EN 07/2021

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