

3 Troughing sets



3 Troughing sets

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3.1 - 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.



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3.2 - 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.

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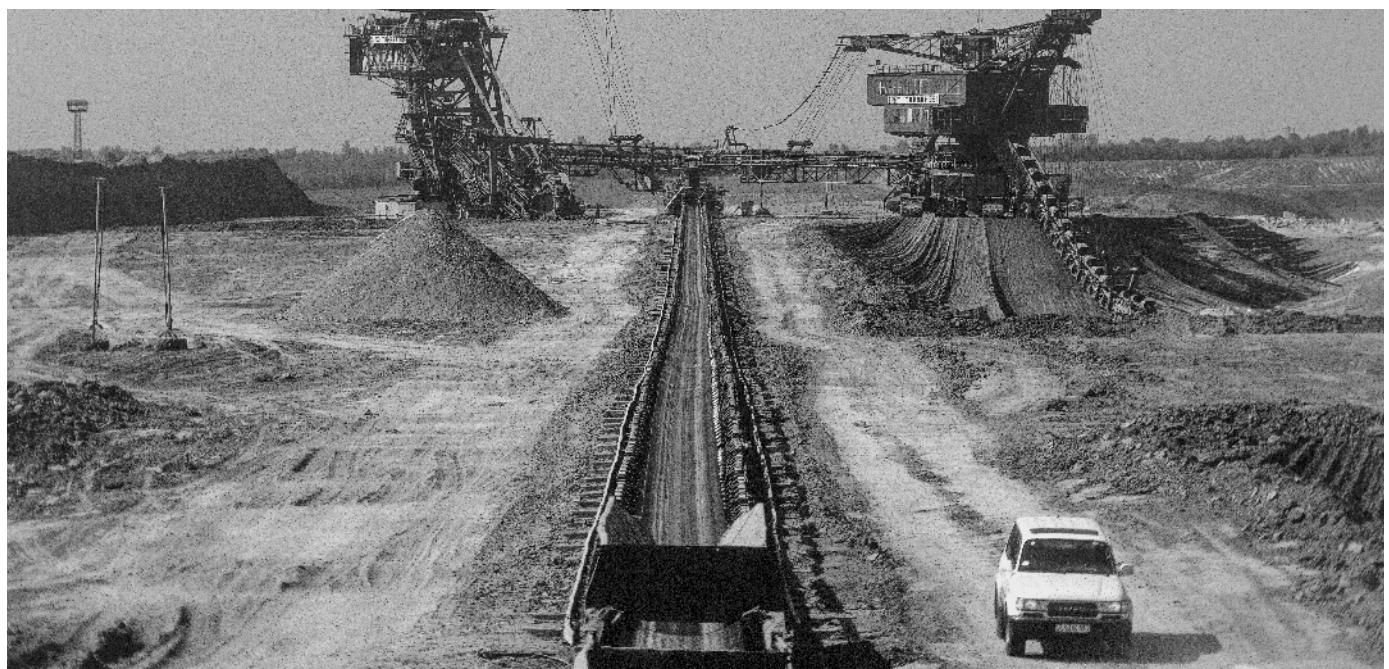
3.2.1 - Choice of the transom in relation to load

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



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3.3 - Arrangements

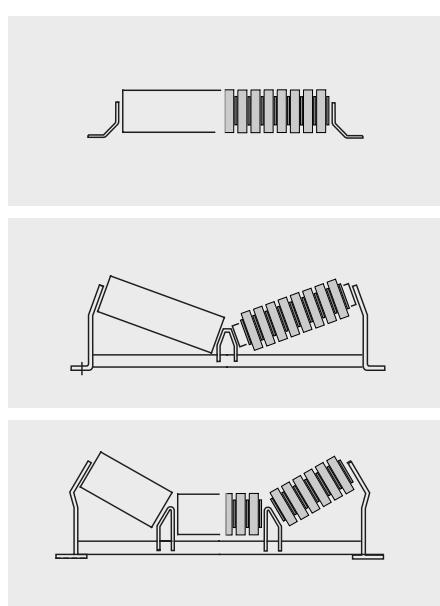
According to the requirements of the specific project, different arrangements of transoms have been designed. These may be separated into fixed and suspended transoms.

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.



Fig. 1 - Fixed troughing sets



3.3.1 - Upper carrying troughing sets

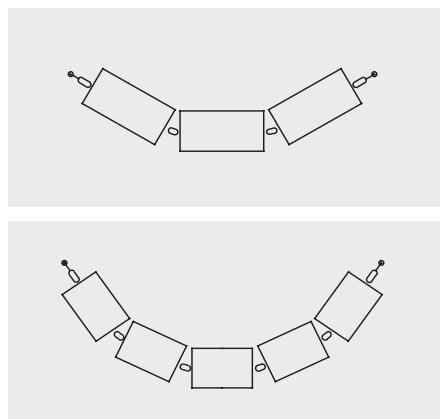
The drawings illustrate the arrangements of fixed carrying troughing sets with plain or impact rollers Fig. 1, and the suspended troughing set "garland" Fig. 2.

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. 3.3.3).

Fig. 2 - "Garland" sets



3.3.2 - 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

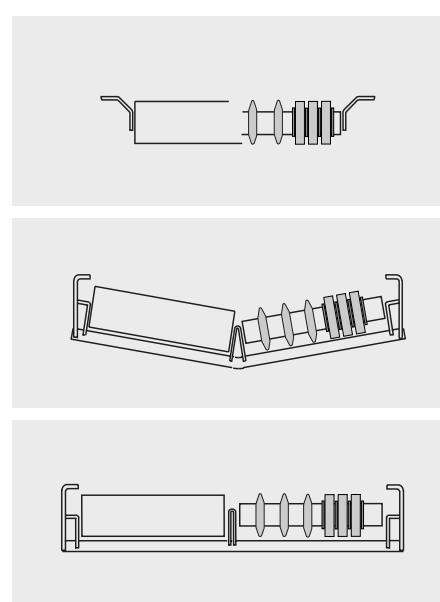
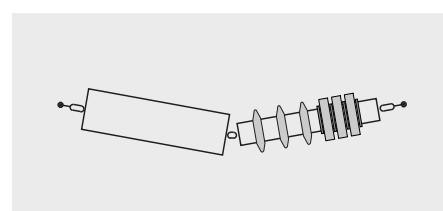


Fig. 4 - "Garland" sets



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3.3.3 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...)

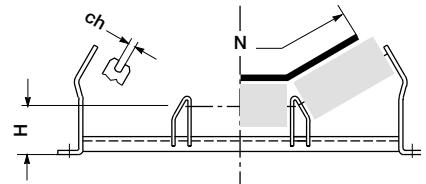
Height H mm of roller axis from ground

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
---------	-----	------	------	------	---

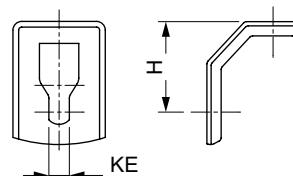
Series

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

3.3.4 - 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

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T2L 20°

T2L 20° Standard.

For light upper troughing sets with two rollers, plain or with impact rings.

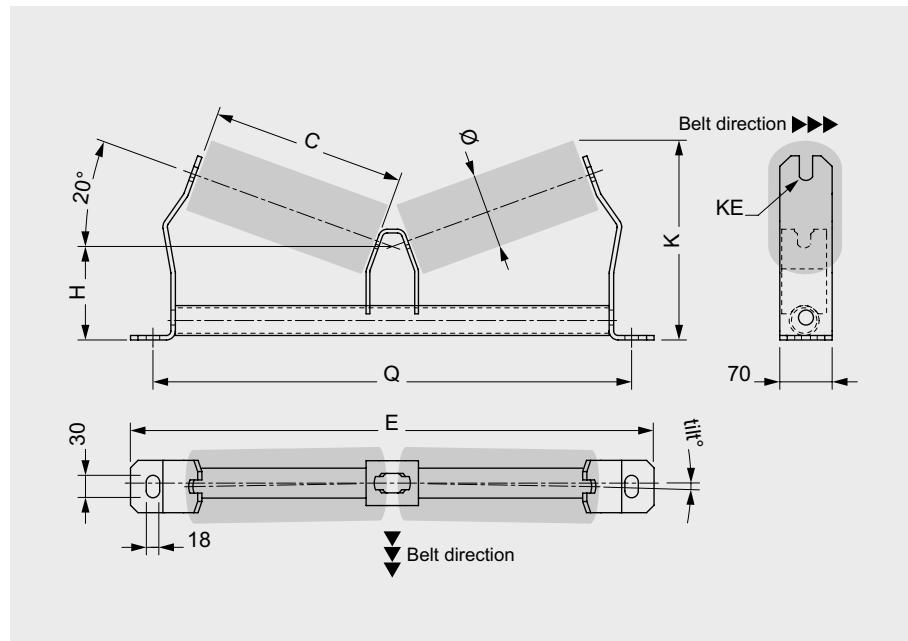
for rollers series

RTL
Ø 60, 76, 89
spindle 15
bearing 6202
KE = 17

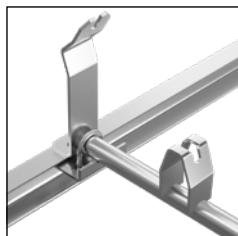
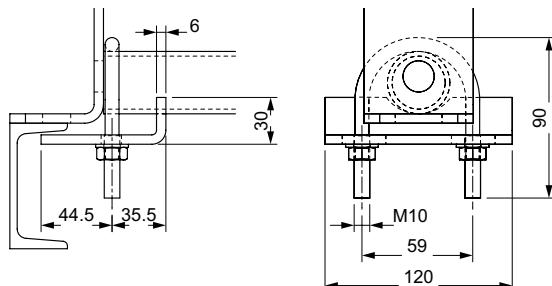
MPS
Ø 60, 76, 89, 102
spindle 15
bearing 6202
KE = 17

PL
Ø 90, 110
spindle 20
bearing 6204
KE = 14, 30

PSV/1-FHD
Ø 63, 89, 108
spindle 20
bearing 6204
KE = 14



Clamping kit available (for transom fixing without holes in the frame)



Clamps ordering codes: ask Rulmeca, reporting the selected transom type T2L beam size SZ 1 and finishing.

T2L 20°



Transom ordering code

Series	Belt width mm	Troughing angle deg.°	Beam size SZ	Across Flat key KE mm	H mm	Finishing	With tilt-reversible R	For rollers		Transom				Weight without rollers kg
	300	400		14	125			Ø mm	Length C mm	Load capacity kg	Q mm	E mm	K mm	
T2L	500	20°	1	17	-	-, YA, YB, YC, YS, Z	R	60 - 63 - 76 89 - 90 102 - 108 110	208	338	540	600	253	3,6
	650			30					258	286	640	700	270	4,0
	800								323	205	740	800	292	4,4
									388	167	890	950	315	4,9
									473	167	1090	1150	344	5,7

Example of ordering:
T2L 500 20° SZ1 KE14
H125 YC
See page 198.

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T3M 20°-30°-35°-45°

T3M $\alpha = 20^\circ - 30^\circ - 35^\circ - 45^\circ$ Standard

For light upper troughing sets with three rollers, plain or with impact rings.

for rollers series

RTL

\varnothing 76, 89
spindle 15
bearing 6202
KE = 17

MPS

\varnothing 76, 89, 102
spindle 15
bearing 6202
KE = 17

PL

\varnothing 90, 110, 140
spindle 20
bearing 6204
KE = 14, 30

PSV/1-FHD

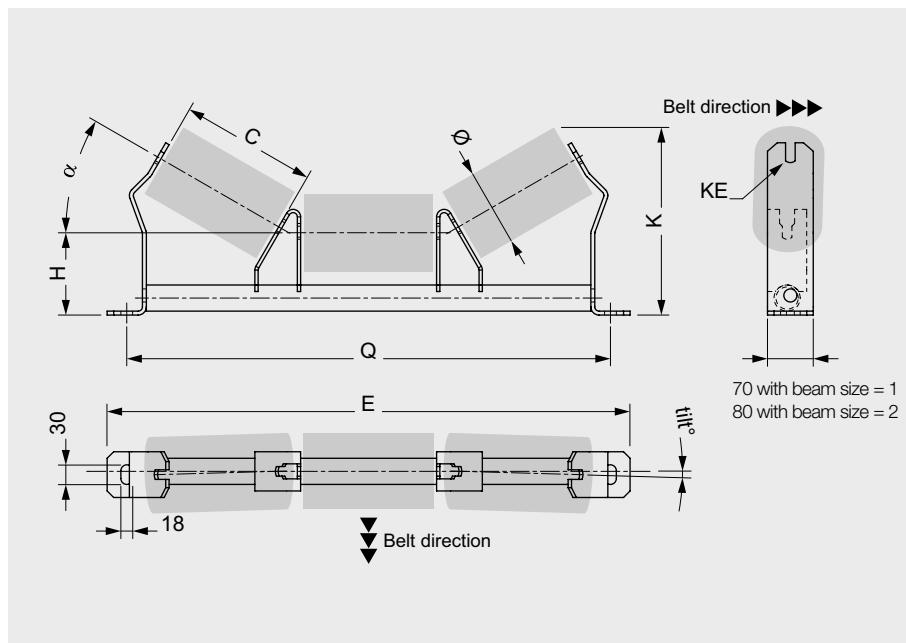
\varnothing 89, 108, 133
spindle 20
bearing 6204
KE = 14

PSV/2, 3-FHD

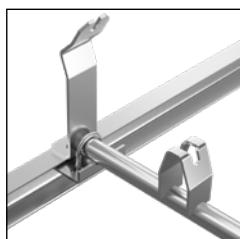
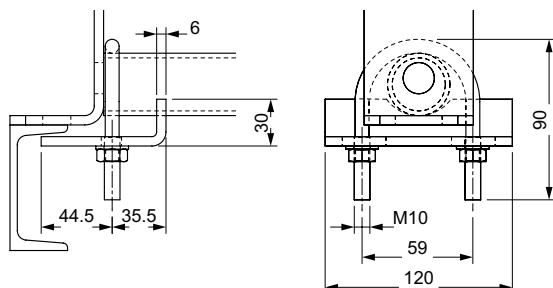
\varnothing 89, 108, 133, 159
spindle 25
bearing 6205, 6305
KE = 18

PSV/4, 5-FHD

\varnothing 108, 133, 159
spindle 30
bearing 6206, 6306
KE = 22



Clamping kit available (for transom fixing without holes in the frame)



Clamps ordering codes: ask Rulmeca, reporting the selected transom type T3M beam size SZ 1 or 2 and finishing.



T3M 20°-30°-35°-45°

Transom ordering code							For rollers				Transom			K max				Weight without rollers			
Series	Belt width mm	Troughing angle deg.°	Beam size SZ	Across Flat key KE mm	H mm	Finishing	With tilt - reversible R	Ø mm	Length C mm	Load capacity kg	Q mm	E mm	20° mm	30° mm	35° mm	45° mm	20° kg	30° kg	35° kg	45° kg	
T3M	400	20° - 30°	1	14-17 18-22 30	121	-, YA, YB, YC, YS, Z -, R		76	168	286	640	700	229	255	268	289	4,2	4,4	4,6	4,8	
					126			89-90	168	286	640	700	229	256	268	290	4,3	4,6	4,7	5	
					131			102	168	286	640	700	229	255	268	289	4,4	4,7	4,8	5,1	
					136			108-110-114	168	286	640	700	250	275	287	308	4,5	4,8	4,9	5,2	
	500	35° - 45°	1		121			76	208	247	740	800	243	275	291	317	4,6	4,9	5	5,3	
					126			89-90	208	247	740	800	243	275	291	318	4,7	5	5,2	5,5	
					131			102	208	247	740	800	243	275	291	317	4,8	5,1	5,2	5,6	
					136			108-110-114	208	247	740	800	263	295	309	337	4,9	5,2	5,3	5,7	
	650	20° - 30°	1		146			127-133-140	208	247	740	800	287	318	333	361	5,1	5,3	5,5	5,9	
					121			76	258	205	890	950	260	300	320	353	5,1	5,4	5,7	6	
					126			89-90	258	205	890	950	260	300	320	353	5,2	5,6	5,8	6,2	
					131			102	258	205	890	950	260	300	320	353	5,3	5,7	5,9	6,3	
	800	35° - 45°	2		136			108-110-114	258	205	890	950	280	320	338	372	5,4	5,8	5,9	6,4	
					146			127-133-140	258	205	890	950	304	343	362	396	5,6	5,9	6,2	6,6	
					138			89-90	258	354	890	950	272	312	332	365	6,9	7,5	7,8	8,3	
					148			108-110-114	258	354	890	950	292	332	350	384	7,2	7,7	8	8,6	
		20° - 30°	1		158			127-133-140	258	354	890	950	316	355	374	408	7,4	7,9	8,2	8,9	
					121			76	323	167	1090	1150	292	332	357	399	5,8	6,2	6,5	7	
					126			89-90	323	167	1090	1150	282	333	357	399	5,9	6,3	6,6	7,1	
					131			102	323	167	1090	1150	292	332	357	399	6	6,4	6,7	7,2	
			2		136			108-110-114	323	167	1090	1150	303	353	375	418	6,1	6,5	6,8	7,3	
					138			89-90	323	289	1090	1150	294	345	369	411	7,8	8,5	8,9	9,6	
					148			108-110-114	323	289	1090	1150	315	365	387	430	8,1	8,7	9,1	9,9	
					158			127-133-140	323	289	1090	1150	339	388	411	454	8,3	8,9	9,4	10,2	
					178			152-159	323	289	1090	1150	370	420	442	487	8,7	9,4	9,8	10,8	

Example of ordering:
T3M 650 35°
SZ2 KE14 H148
See page 198.

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T3P 20°-30°-35°-45°

BW 800-1600

T3P $\alpha = 20^\circ - 30^\circ - 35^\circ - 45^\circ$ Standard

For medium upper troughing sets with three rollers, plain or with impact rings.

for rollers series

PL

\varnothing 90, 110, 140
spindle 20
bearing 6204
KE = 14, 30

PSV/4, 5-FHD

\varnothing 108, 133, 159
spindle 30
bearing 6206,
6306
KE = 22

PSV/1-FHD

\varnothing 89, 108, 133
spindle 20
bearing 6204
KE = 14

PSV/7-FHD

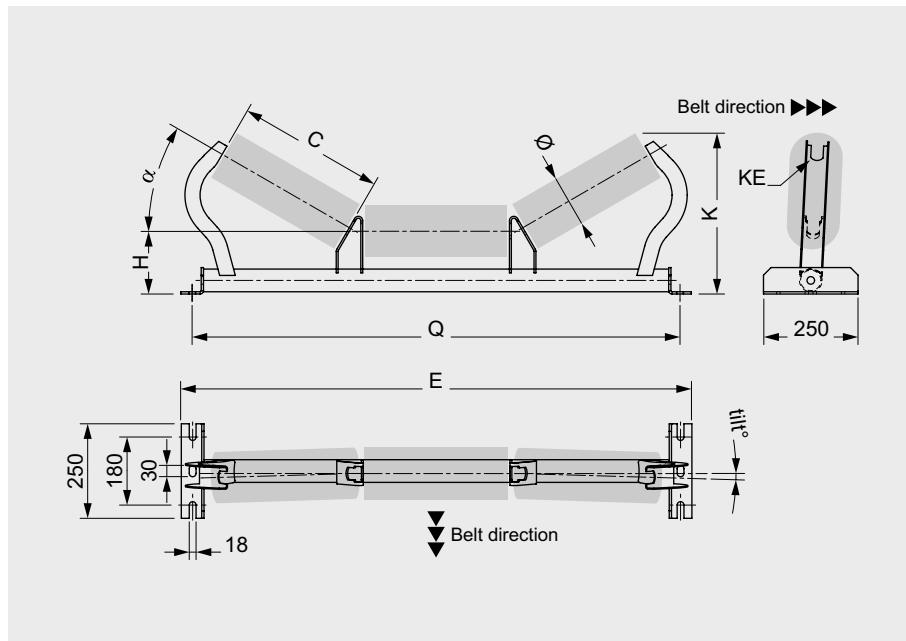
\varnothing 108, 133, 159,
194
spindle 40
bearing 6308
KE = 32

PSV/2, 3-FHD

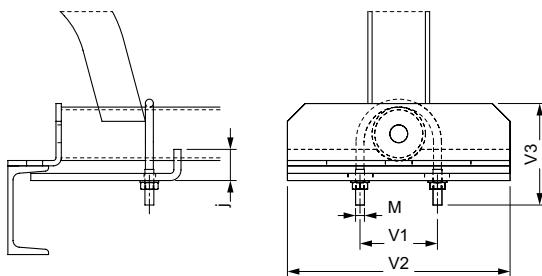
\varnothing 89, 108,
133, 159
spindle 25
bearing 6205,
6305
KE = 18



Clamps ordering codes: ask Rulmeca, reporting the selected transom type T3P beam size SZ 3, 4, 5, 6 and finishing.



Clamping kit available (for transom fixing without holes in the frame)



Size	J	V1	V2	V3	M
3-4	35	86	250	119	M10
5-6	50	100	250	150	M12



T3P 20°-30°-35°-45°

BW 800-1600

Transom ordering code							With tilt-reversible R	For rollers		Transom		K max				Weight without rollers			
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	20° kg	30° kg	35° kg
T3P	800	20° - 30°	3	146	146	146	89-90	323	460	1090	1150	302	353	377	419	10,2	9,8	10,0	11,0
					156	156	108-110-114	323	460	1090	1150	323	373	395	438	10,3	10,0	10,2	11,2
					166	166	127-133-140	323	460	1090	1150	347	396	419	462	10,4	10,1	10,3	11,5
					186	186	152-159	323	460	1090	1150	378	428	450	495	10,6	11,0	11,2	12,5
					146	146	89-90	388	388	1290	1350	324	385	414	465	10,4	10,9	11,1	11,6
					156	156	108-110-114	388	388	1290	1350	345	405	433	484	10,8	11,0	11,2	11,8
					166	166	127-133-140	388	388	1290	1350	369	428	456	508	11,0	11,2	11,4	12,1
					186	186	152-159	388	388	1290	1350	400	460	487	541	11,6	12,0	12,3	13,6
	1000	35° - 45°	3	166	166	166	127-133-140	388	581	1290	1350	369	428	456	508	12,6	12,8	13,0	13,7
					186	186	152-159	388	581	1290	1350	369	428	456	508	13,2	13,7	13,9	15,4
					146	146	89-90	473	325	1540	1600	354	428	463	525	11,7	12,2	12,4	13,1
					156	156	108-110-114	473	325	1540	1600	374	448	481	544	12,1	12,4	12,6	13,3
					166	166	127-133-140	473	325	1540	1600	398	471	505	568	12,2	12,5	12,8	13,5
					186	186	152-159	473	325	1540	1600	429	503	536	601	12,8	13,4	13,7	14,6
					166	166	127-133-140	473	487	1540	1600	398	471	505	568	15,4	14,5	14,7	14,2
					186	186	152-159	473	487	1540	1600	429	503	536	601	14,8	15,3	15,6	16,5
	1200	35° - 45°	4	146	184	184	127-133-140	473	634	1540	1600	416	489	523	586	18,2	16,2	16,4	16,9
					204	204	152-159	473	634	1540	1600	447	521	554	619	17,0	16,5	17,3	18,0
					166	166	127-133-140	473	634	1540	1600	478	551	582	647	13,2	13,6	13,8	14,6
					186	186	152-159	473	634	1540	1600	499	573	604	671	13,8	14,4	14,7	15,7
					166	166	127-133-140	473	634	1540	1600	520	593	624	691	15,4	15,8	16,0	16,8
					186	186	152-159	473	634	1540	1600	551	623	654	721	16,0	16,6	16,9	17,9
					184	184	127-133-140	538	431	1740	1800	420	503	542	614	15,4	15,8	16,0	16,8
					204	204	152-159	538	431	1740	1800	451	535	573	647	16,9	17,5	17,5	18,3
	1400	35° - 45°	5	146	184	184	127-133-140	538	561	1740	1800	438	521	560	632	17,7	18,3	18,6	19,4
					204	204	152-159	538	561	1740	1800	469	553	591	665	17,7	18,3	18,6	19,4
					184	184	127-133-140	538	710	1740	1800	438	521	560	632	19,8	20,3	20,6	21,1
					204	204	152-159	538	710	1740	1800	469	553	591	665	20,5	21,1	21,5	22,2
					166	166	127-133-140	608	387	1940	2000	444	538	582	664	16,7	17,1	17,4	18,2
					186	186	152-159	608	387	1940	2000	475	570	613	696	17,3	17,9	18,3	19,3
					184	184	127-133-140	608	503	1940	2000	462	556	600	682	18,2	18,8	19,1	19,7
					204	204	152-159	608	503	1940	2000	493	588	631	714	18,9	19,6	20,0	20,7
	1600	35° - 45°	6	146	234	234	165-168-178-180-194	608	503	1940	2000	540	633	678	758	19,6	20,3	20,7	21,4
					184	184	127-133-140	608	637	1940	2000	462	556	600	682	21,3	21,9	22,2	22,9
					204	204	152-159	608	637	1940	2000	493	588	631	714	22,1	22,8	23,1	21,9
					234	234	165-168-178-180-194	608	753	1940	2000	540	633	678	758	22,7	23,4	23,8	24,5

Example of ordering:

T3P 800 35°

SZ3 KE18 H186 Z

See page 198.

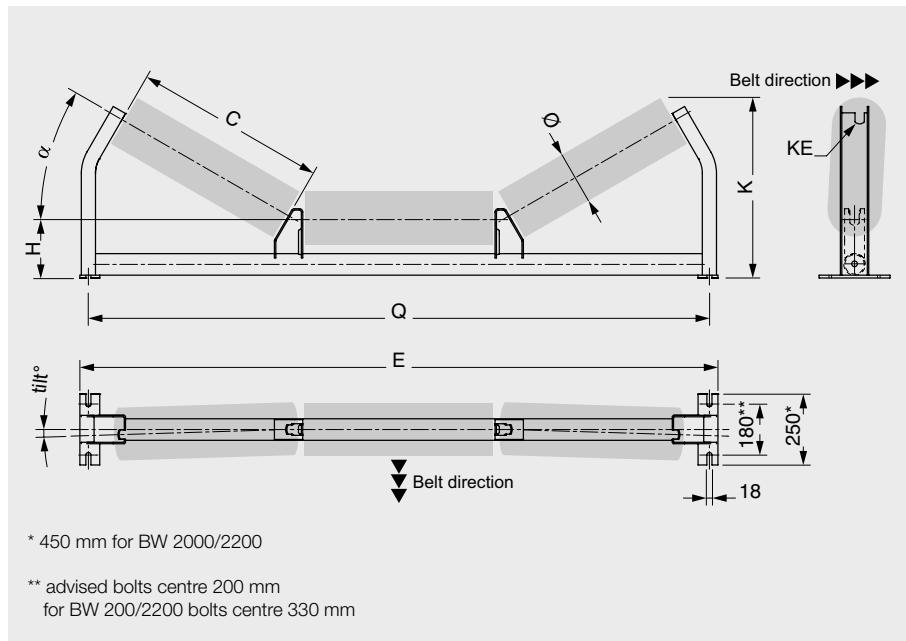
3 Troughing sets

T3P 20°-30°-35°-45°

BW 1800-2200

T3P $\alpha = 20^\circ - 30^\circ - 35^\circ - 45^\circ$ Standard

For upper troughing sets, extra heavy with three rollers, plain or with impact rings



for rollers series

PSV/2, 3-FHD

ø 133
spindle 25
bearing 6205, 6305
ch = 18

PSV/7-FHD

ø 159, 194
spindle 40
bearing 6308
ch = 32

PSV/4, 5-FHD

ø 159
spindle 30
bearing 6206,
6306
ch = 22

NOTE no clamping kits are for so heavy T3P 1800-2200 idler sets



T3P 20°-30°-35°-45°

BW 1800-2200

Transom ordering code							For rollers	Transom			K max				Weight without rollers					
Series	Belt width mm	Troughing angle deg.°	Beam size SZ	Across Flat key KE mm	H mm	Finishing With tilt-reversible R		Ø mm	Length C mm	Load capacity kg	Q mm	E mm	20° mm	30° mm	35° mm	45° mm	20° kg	30° kg	35° kg	45° kg
T3P	1800	20° - 30° 35° - 45°	6	18 - 22 32	5	- , YA, YB, YC, YS, Z - , R	186	127-133-140	678	446	2190	2250	488	593	642	733	21,6	23,4	24,5	26,4
							206	152-159	678	446	2190	2250	519	625	674	765	22,7	24,7	25,7	27,8
							236	165-168-178 180-194	678	446	2190	2250	565	670	720	809	23,5	25,6	26,7	28,6
							186	127-133-140	678	667	2190	2250	488	593	642	733	25,2	27,0	28,1	30,0
							206	152-159	678	667	2190	2250	519	625	674	765	26,3	28,3	29,3	31,4
							236	165-168-178 180-194	678	667	2190	2250	565	670	720	809	27,2	29,2	30,4	32,4
	2000	20° - 30° 35° - 45°	6	18 - 22 32	6	- , YA, YB, YC, YS, Z - , R	206	152-159	758	604	2420	2500	546	665	719	822	32,5	34,8	35,6	38,1
							236	165-168-178 180-194	758	604	2420	2500	593	710	766	866	33,3	35,7	35,7	39,0
							219	152-159	758	909	2420	2500	559	678	732	835	46,3	48,7	49,3	51,7
							249	165-168-178 180-194	758	909	2420	2500	606	723	779	879	47,2	50,2	50,4	52,7
			7	18 - 22 32	7	- , YA, YB, YC, YS, Z - , R	206	152-159	808	558	2620	2700	563	688	748	857	33,9	36,4	37,5	40,1
							236	165-168-178 180-194	808	558	2620	2700	610	735	795	901	34,7	37,3	38,6	41,1
	2200	20° - 30° 35° - 45°	6	18 - 22 32	6	- , YA, YB, YC, YS, Z - , R	219	152-159	808	840	2620	2700	576	701	761	870	48,6	51,3	52,2	54,9
							249	165-168-178 180-194	808	840	2620	2700	623	748	808	914	49,5	52,2	53,4	55,9

Example

of ordering:

T3P 1800 45° SZ5 KE22

H206 YB

See page 198.

3 Troughing sets

R2T 10°

R2T 10° Standard.

For return sets "V", with two rollers, plain or with rings.

for rollers series

PSV/1-FHD

Ø 89, 108, 133 N
Ø 108, 133, 159
NC
spindle 20
bearing 6204
KE = 14

PSV/4 5-FHD

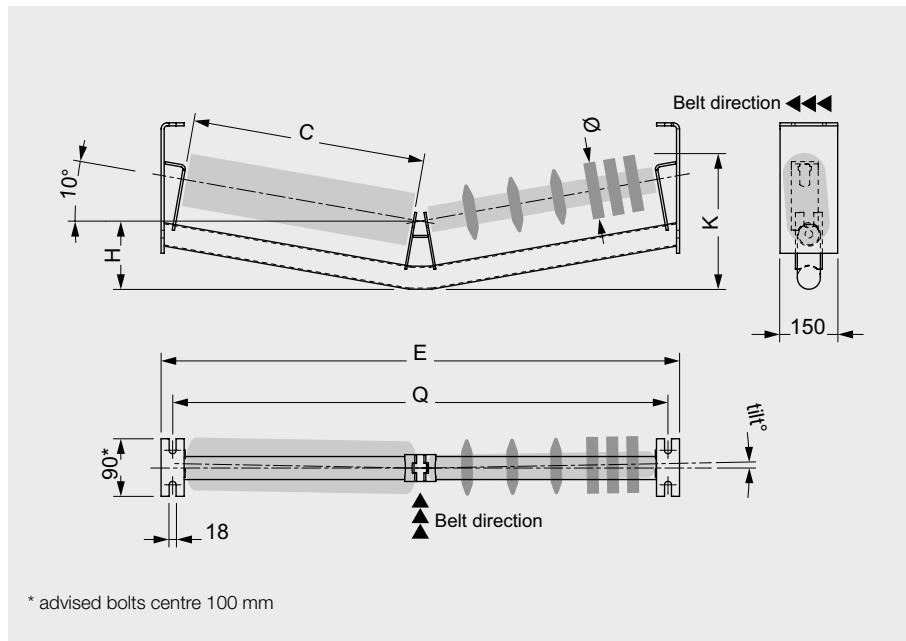
Ø 108, 133, 159 N
Ø 133, 159, 180 NC
spindle 30
bearing 6206,
6306
KE = 22

PSV/2, 3-FHD

Ø 89, 108, 133,
159 N
Ø 108, 159, 180 NC
spindle 25
bearing 6205, 6305
KE = 18

PSV/7-FHD

Ø 108, 133, 159,
194
Ø 159, 180, 194 NC
spindle 40
bearing 6308
KE = 32



R2T 10°



Transom ordering code

Series	Belt width mm	Troughing angle deg.°	Beam size SZ	Across Flat key KE mm	H mm	Finishing	With tilt - reversible R	For rollers		Transom					Weight without rollers kg
								Ø mm	Length C mm	Load capacity kg	Q mm	E mm	K mm		
R2T	650	10°	14 - 18 - 22 - 32	2	220	-, YA, YB, YC, YS, Z	R I	89 - 108 133 - 159 180 - 194	388	354	890	950	387	6,2	
	800			2	238				473	289	1090	1150	405	7,0	
	1000			3	256				608	388	1290	1350	433	8,6	
	1200			3	279				708	325	1540	1600	456	9,8	
	1400			4	297				808	431	1740	1800	474	13,1	
	1600			5	297				808	561	1740	1800	491	12,9	
	1800			4	314				908	387	1940	2000	491	14,3	
	2000			5	314				908	503	1940	2000	508	14,0	
	2200			6	338				1008	342	2190	2250	565	16,0	
				5	338				1008	446	2190	2250	582	15,7	
				6	358				1108	604	2420	2500	552	21,5	
				6	375				1258	560	2620	2700	569	22,6	

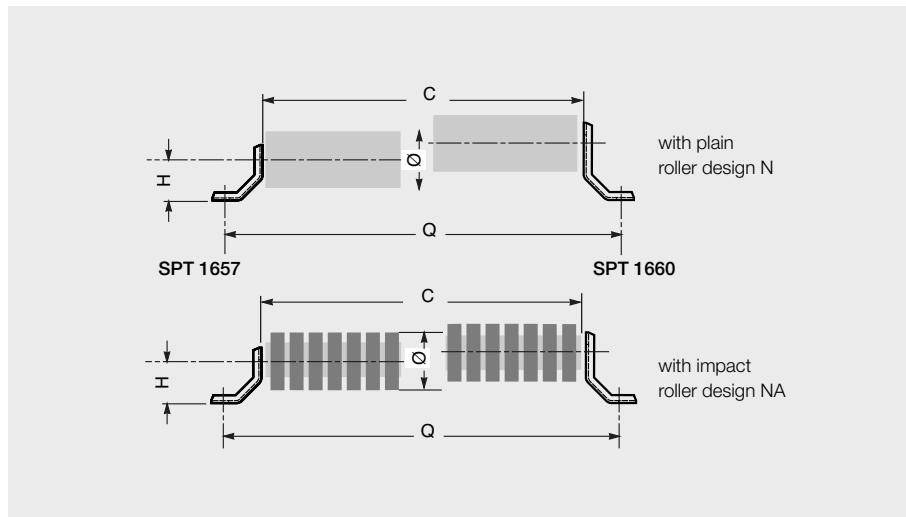
Example
of ordering:
T3P 1800 45° SZ5 KE22
H206 YB
See page 198.

3 Troughing sets

Support brackets

SPT 1657-1660

For light upper set flat roller, plain or with impact rings.



SPT 1657 for rollers series

RTL
spindle 15
bearing 6202
ch = 17

PSV/1-FHD
spindle 20
bearing 6204
ch = 14

MPS
spindle 15
bearing 6202
ch = 17

Belt width mm	Roller Ø mm	C mm	ch	H mm		Q mm	Weight of two brackets without rollers mm	
				SPT 1657	SPT 1660		SPT 1657	SPT 1660
300	388			70	100	520	0.7	1.5
400	508			70	100	640	0.7	1.5
500	608			70	100	740	0.7	1.5
650	758			70	100	890	0.7	1.5
800	958			70	100	1090	0.7	1.5
1000	1158			70	100	1290	0.7	1.5
1200	1408			70	100	1540	0.7	1.5
1400	1608			70	100	1740	0.7	1.5

SPT 1660 for rollers series

PSV/1-FHD
spindle 20
bearing 6204
ch = 14

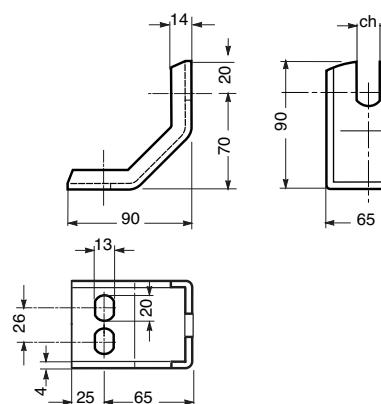
PSV/4-FHD
spindle 30
bearing 6206
ch = 22

PSV/2-FHD
spindle 25
bearing 6205
ch = 18

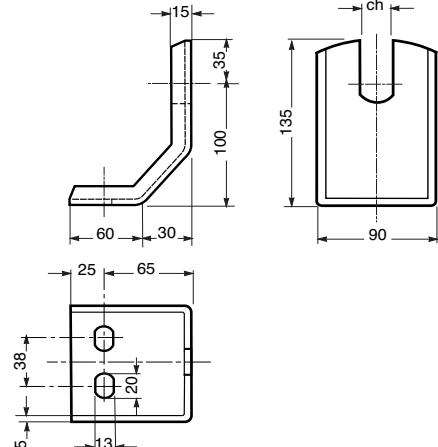
PSV/5-FHD
spindle 30
bearing 6306
ch = 22

PSV/3-FHD
spindle 25
bearing 6305
ch = 18

Support bracket SPT 1657



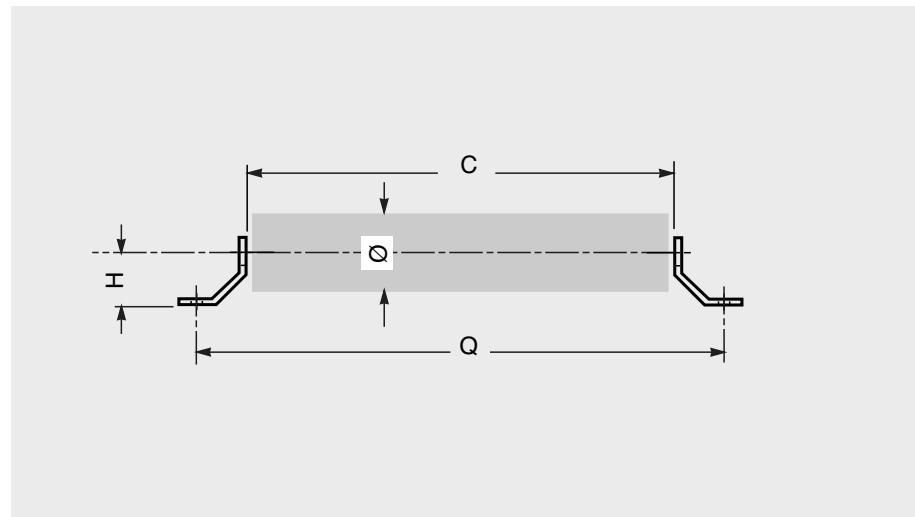
Support bracket SPT 1660



Example of ordering:
support bracket
SPT 1657, F17, YA
See page 198.

Support brackets SPT 070

For upper set flat roller PL.



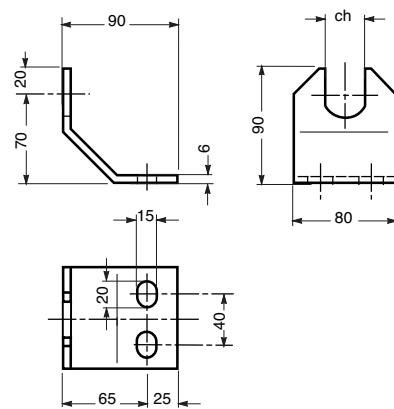
for rollers series

PL

\varnothing 90,110,140
spindle 20
bearing 6204
 $ch = 30$

Belt width mm	Roller \varnothing	C mm	ch	H mm	Q mm	Weight of two brackets without rollers mm
90-110-140	300	388	30	70	520	1.0
	400	508		70	640	1.0
	500	608		70	740	1.0
	650	758		70	890	1.0
	800	958		70	1090	1.0
	1000	1158		70	1290	1.0
	1200	1408		70	1540	1.0

Support bracket SPT 070

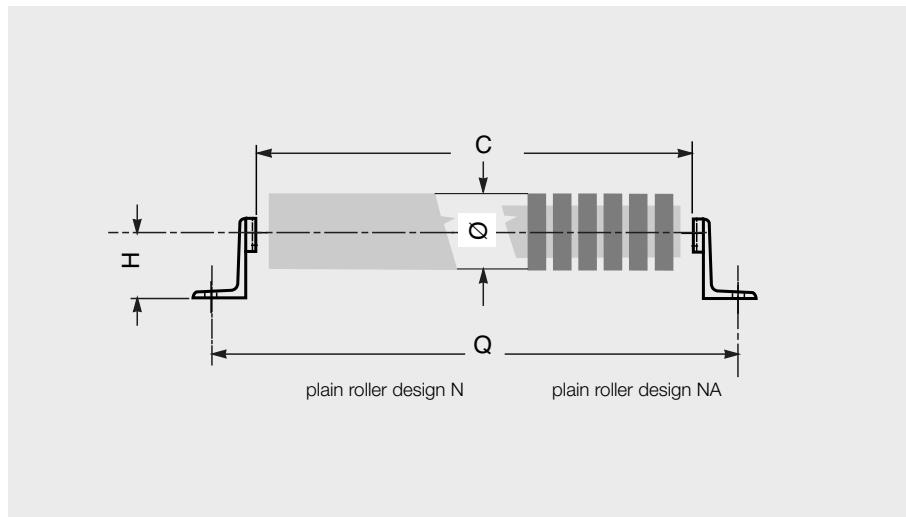


Example
of ordering:
support bracket
SPT 070, F30, YC
See page 198.

3 Troughing sets

Support brackets SPT 1795

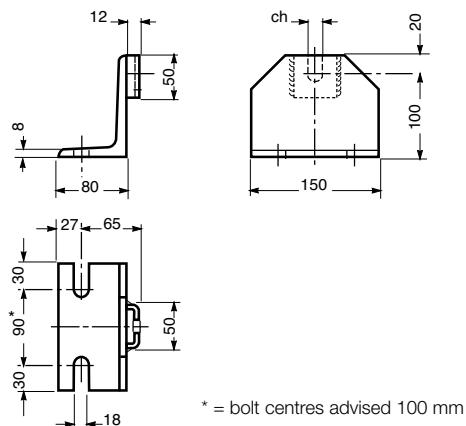
For upper set heavy flat roller,
plain or with impact rings.



for rollers series

PSV/1-FHD	PSV/2-FHD	Belt width mm	Roller Ø	C mm	ch	H mm	Q mm	Weight of two brackets without rollers mm
ø 89,108,133 spindle 20 bearing 6204 ch = 14	ø 108,133,159 spindle 25 bearing 6205 ch = 18	500	89-108-133-159	608		100	740	3.7
		650		758		100	890	3.7
		800		958		100	1090	3.7
		1000		1158		100	1290	3.7
		1200		1408		100	1540	3.7
		1400		1608		100	1740	3.7
		1600		1808		100	1940	3.7
		1800		2008		100	2140	3.7
		2000		2208		100	2340	3.7

Support bracket SPT 1795

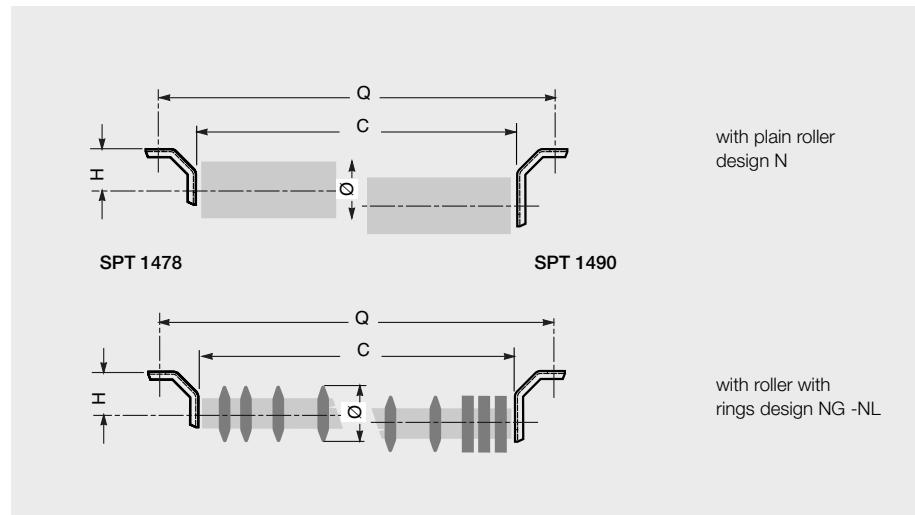


Example
of ordering:
support bracket
SPT 1795, F22, Z
See page 198.

Support brackets

SPT 1478 - 1490

For light upper set flat roller,
plain or with impact rings.



SPT 1478 for rollers series

RTL
spindle 15
bearing 6202
ch = 17

PSV/1-FHD
spindle 20
bearing 6204
ch = 14

MPS
spindle 15
bearing 6202
ch = 17

Belt width mm	Roller			H		Q mm	Weight of two brackets without rollers	
	Ø mm	C mm	ch	SPT 1478 mm	SPT 1490 mm		SPT 1478 mm	SPT 1490 mm
300		388		70	100	520	0.7	1.5
400	133	508		70	100	640	0.7	1.5
500	180	608		70	100	740	0.7	1.5
650	60	758		70	100	890	0.7	1.5
800	958			70	100	1090	0.7	1.5
1000	1158			70	100	1290	0.7	1.5
1200	1408	SPT 1478: 14 - 17 SPT 1490: 14 - 18 - 22		70	100	1540	0.7	1.5
1400	1608			70	100	1740	0.7	1.5

SPT 1490 for rollers series

PSV/1-FHD
spindle 20
bearing 6204
ch = 14

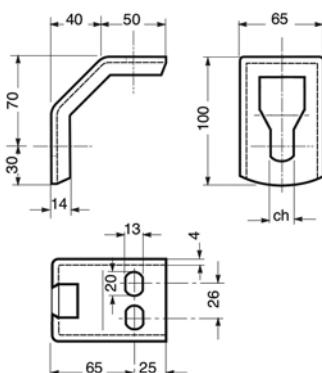
PSV/4-FHD
spindle 30
bearing 6206
ch = 22

PSV/2-FHD
spindle 25
bearing 6205
ch = 18

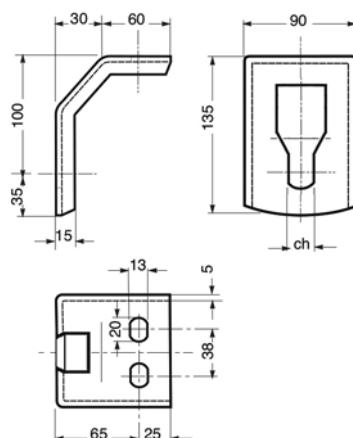
PSV/5-FHD
spindle 30
bearing 6306
ch = 22

PSV/3-FHD
spindle 25
bearing 6305
ch = 18

Support bracket SPT 1478



Support bracket SPT 1490

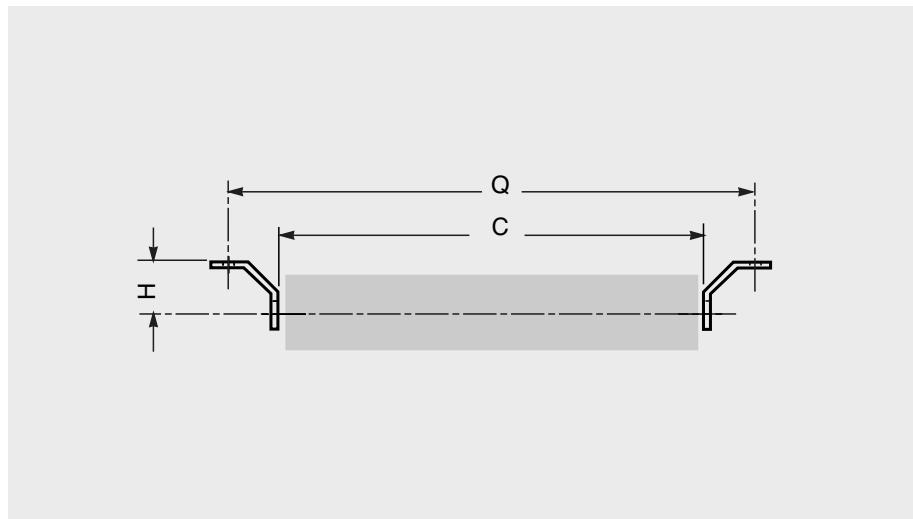


**Example
of ordering:**
support bracket
SPT 1478, F14
See page 198.

3 Troughing sets

Support brackets SPT 243

For flat return roller PL.



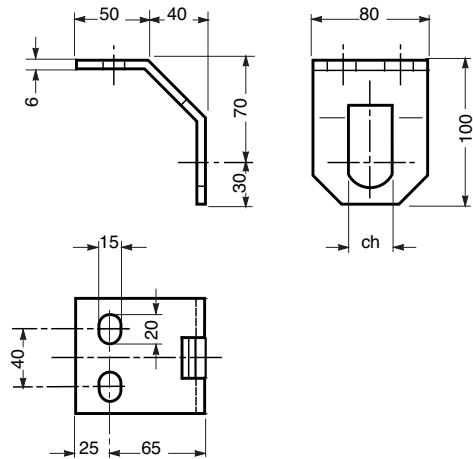
for rollers series

PL

ø 90,110,140
spindle 20
bearing 6204
ch = 30

Belt width mm	Roller Ø mm	C mm	ch	H mm	Q mm	Weight of two brackets without rollers mm
300	300	388	30	70	520	1.0
400	400	508	30	70	640	1.0
500	500	608	30	70	740	1.0
650	650	758	30	70	890	1.0
800	800	958	30	70	1090	1.0
1000	1000	1158	30	70	1290	1.0
1200	1200	1408	30	70	1540	1.0

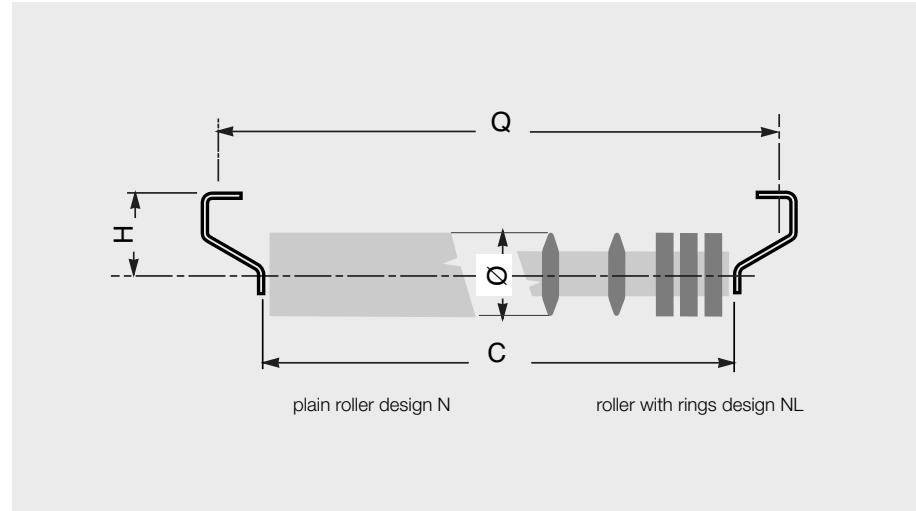
Support bracket SPT 243



Example
of ordering:
support bracket
SPT 243, F30, Z
See page 198.

Support brackets SPT 1495

For heavy return set flat roller,
plain or with rings.



for rollers series

PSV/2-FHD

\varnothing 108,133,159
spindle 25
bearing 6205
 $ch = 18$

PSV/4-FHD

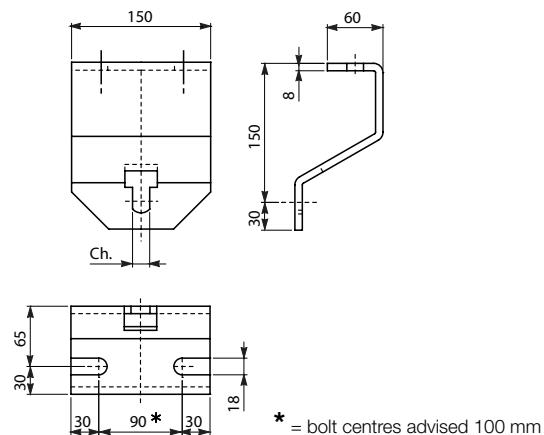
\varnothing 108,133,159
spindle 30
bearing 6206
 $ch = 22$

PSV/7-FHD

\varnothing 133,159,194
spindle 40
bearing 6308
 $ch = 32$

Belt width mm	Roller \varnothing mm	C mm	ch	H mm	Q mm	Weight of two brackets without rollers mm
500	608			150	740	4.6
650	758			150	890	4.6
800	958			150	1090	4.6
1000	1158			150	1290	4.6
1200	1408			150	1540	4.6
1400	1608			150	1740	4.6
1600	1808			150	1940	4.6
1800	2008			150	2140	4.6
2000	2208			150	2340	4.6

Support bracket SPT 1495



Example
of ordering:
support bracket
SPT 1495, F18, YB
See page 198.

3 Troughing sets

3.4 - 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.

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.

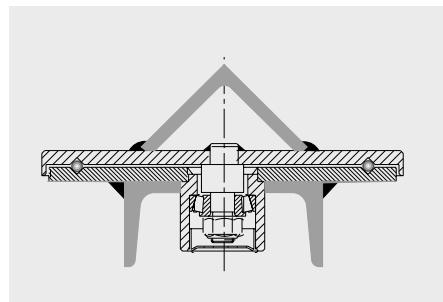


Fig. 5

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.

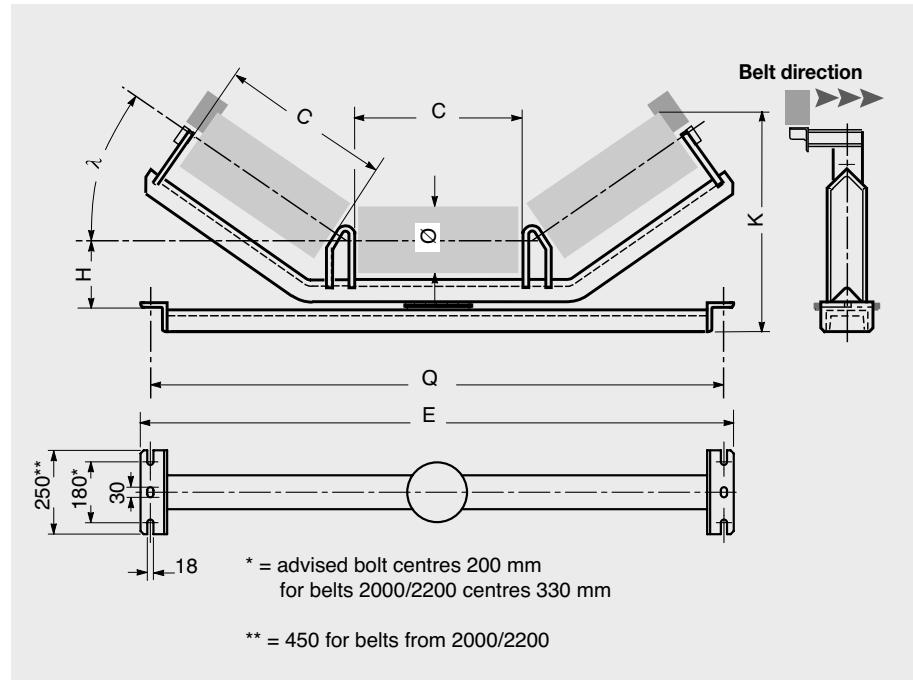
It is not advised to use self-centering troughing sets on very short conveyors.

**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.**

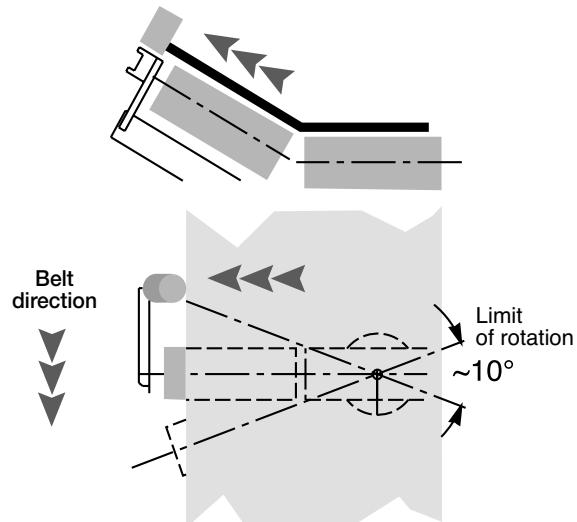
Self-centering transom Model S

without brake for single
directional belt

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 directional belts, where the tendency to track off is not excessive.

**Example
of ordering:**
CT3PS 800 30°
SZ03 KE14 H166 WT
See page 198.

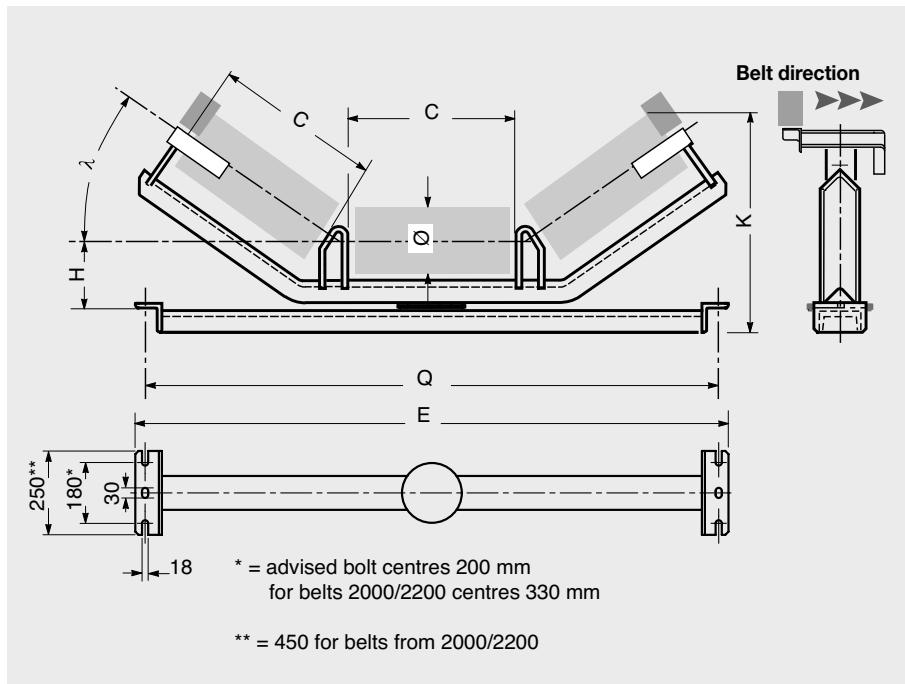
3 Troughing sets

Self-centering transom

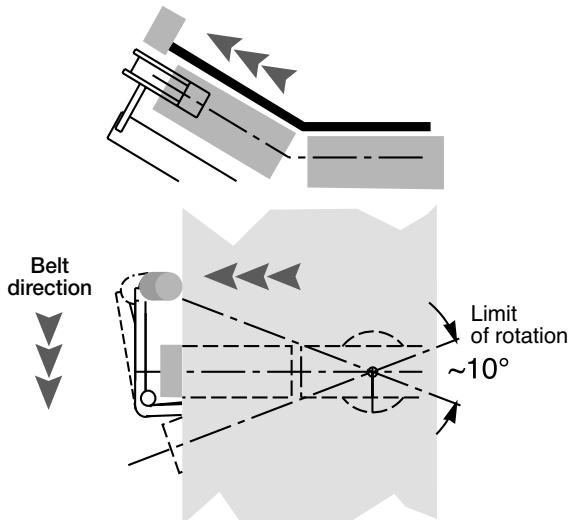
Model F

With brake for single directional belt

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

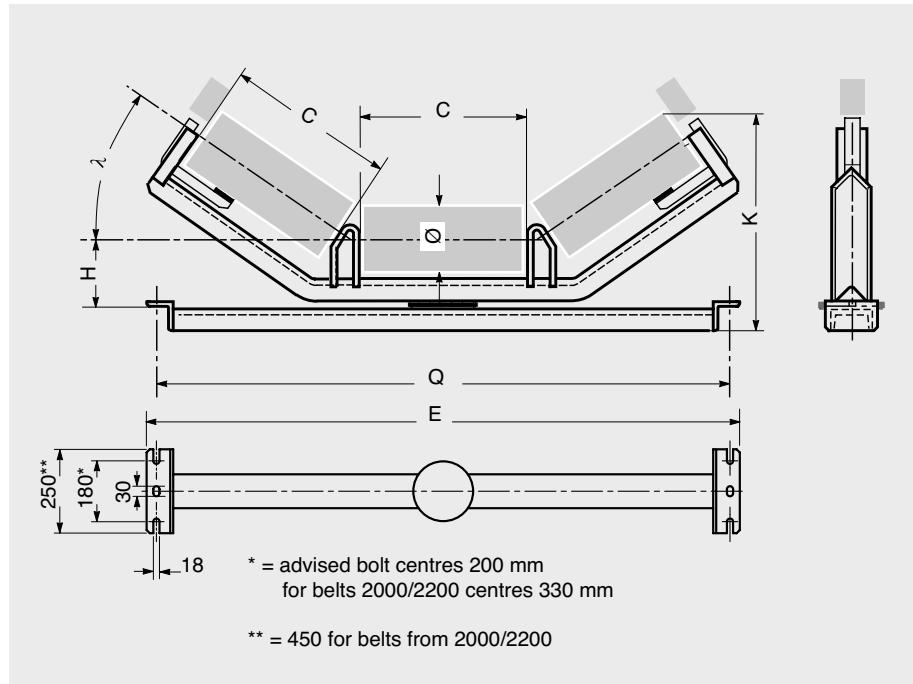
In this design the lever arm pivots, transmitting a force produced by the belt on to the offset guide roller which in turn causes a brake to be applied to the side support roller. This braking action together with the side belt force itself on the lever arm (as with model S) generates a force that rotates 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.

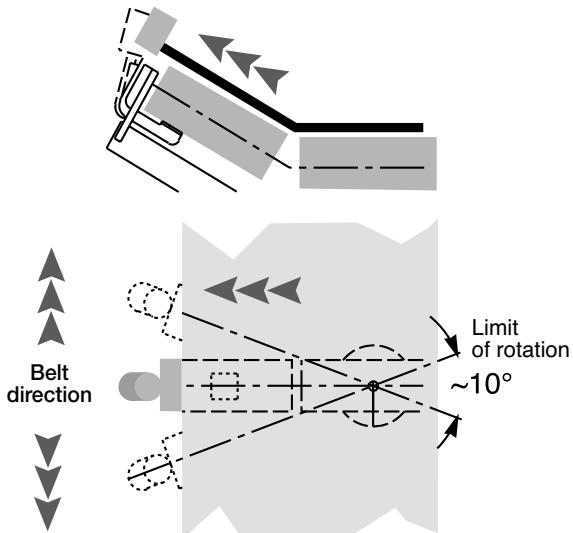
Self-centering transom Model R

With brake for reversible belt

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.

3 Troughing sets

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	400	1	14 - 17 18 - 22 30	1	121	r, YA, YB, YC, YS, Z	76	168	286	640	700	229	255	268	289	14,2	14,7	16,9			
							126	89-90	286	640	700	229	256	268	290	14,2	14,7	16,9			
							131	102	286	640	700	229	255	268	289	14,6	14,7	17,5			
							136	108-110-114	286	640	700	250	275	287	308	14,9	14,7	17,5			
							121	76	247	740	800	243	275	291	317	15,6	16,1	18,3			
	500	1	14 - 17 18 - 22 30	1	126	r, YA, YB, YC, YS, Z	89-90	208	247	740	800	243	275	291	318	15,6	16,1	18,3			
							131	102	247	740	800	243	275	291	317	16,0	16,1	18,9			
							136	108-110-114	247	740	800	263	295	309	337	16,3	16,1	18,9			
							146	127-133-140	247	740	800	287	318	333	361	16,4	16,2	19,0			
							121	76	258	205	890	950	260	300	320	353	17,6	18,1	20,3		
S, R, F	650	20° - 30° 35° - 45°	1	1	126	r, YA, YB, YC, YS, Z	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		
							138	89-90	258	354	890	950	272	312	332	365	19,5	20,0	22,2		
	800	2	14 - 17 18 - 22 30	2	148	r, YA, YB, YC, YS, Z	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		
							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		
F	800	1	14 - 17 18 - 22 30	1	136	r, YA, YB, YC, YS, Z	108-110-114	323	167	1090	1150	303	353	375	418	21,0	20,8	23,6			
							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. ^o	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	800	20° - 30° 35° - 45°	S, R, F	3	146	89-90	323	460	1090	1150	302	353	377	419	25,1	27,8	27,8					
						156	323	460	1090	1150	323	373	395	438	25,8	28,4	28,4					
						166	323	460	1090	1150	347	396	419	462	25,9	28,5	28,5					
						186	323	460	1090	1150	378	428	450	495	26,3	28,9	28,9					
	1000				3	146	388	388	1290	1350	324	385	414	465	28,5	31,2	31,2					
						156	388	388	1290	1350	345	405	433	484	29,2	31,8	31,8					
						166	388	388	1290	1350	369	428	456	508	29,3	31,9	31,9					
						186	388	388	1290	1350	400	460	487	541	29,7	32,3	32,3					
	1200				4	166	388	581	1290	1350	369	428	456	508	35,4	35,3	35,3					
						186	388	581	1290	1350	369	428	456	508	35,8	35,8	35,8					
						146	89-90	473	325	1540	1600	354	428	463	525	32,8	35,5	35,5				
						156	89-90	473	325	1540	1600	374	448	481	544	33,5	36,1	36,1				
	S, R, F				14 - 18 22 - 30 32	166	89-90	473	325	1540	1600	398	471	505	568	33,6	36,2	36,2				
						186	89-90	473	325	1540	1600	429	503	536	601	34,0	36,6	36,6				
						166	127-133-140	473	487	1540	1600	398	471	505	568	40,8	40,3	40,3				
						186	127-133-140	473	487	1540	1600	429	503	536	601	41,2	40,7	40,7				
						184	127-133-140	473	634	1540	1600	416	489	523	586	48,9	45,5	45,5				
						204	127-133-140	473	634	1540	1600	447	521	554	619	49,3	46,0	46,0				
						166	127-133-140	538	288	1740	1800	420	503	542	614	37,0	39,6	39,6				
						186	127-133-140	538	288	1740	1800	451	535	573	647	37,4	40,0	40,0				
						166	127-133-140	538	431	1740	1800	420	503	542	614	51,6	44,1	44,1				
						186	127-133-140	538	431	1740	1800	451	535	573	647	52,0	44,5	44,5				
						184	127-133-140	538	561	1740	1800	438	521	560	632	54,0	50,0	50,0				
						204	127-133-140	538	561	1740	1800	469	553	591	665	54,4	50,5	50,5				
	1400					184	127-133-140	538	710	1740	1800	438	521	560	632	61,0	59,0	59,0				
						204	127-133-140	538	710	1740	1800	469	553	591	665	61,4	59,4	59,4				
						166	127-133-140	608	387	1940	2000	444	538	582	664	56,5	48,1	48,1				
						186	127-133-140	608	387	1940	2000	475	570	613	696	57,0	48,5	48,5				
						184	127-133-140	608	503	1940	2000	462	556	600	682	59,2	54,7	54,7				
						204	127-133-140	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				
						184	127-133-140	608	637	1940	2000	462	556	600	682	75,6	64,5	64,5				
						204	127-133-140	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.

3 Troughing sets

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°	18 - 22 32	5	184	- YA, YB, YC, YS, Z	127-133-140	678	446	2190	2250	488	593	642	733	70,7	57,1	59,9				
							152-159	678	446	2190	2250	519	625	674	765	71,1	57,7	60,3				
							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				
							152-159	678	667	2190	2250	519	625	674	765	83,7	68,5	71,1				
							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				
							165-168-178 180-194	758	604	2420	2500	593	710	766	866	105,0	75,7	78,9				
							219	758	152-159	909	2420	2500	559	678	732	835	133,1	97,4	100,0			
				7	249		165-168-178 180-194	758	909	2420	2500	606	723	779	879	133,6	97,9	101,1				
							204	808	152-159	558	2620	2700	563	688	748	857	111,1	79,9	82,5			
							234	808	165-168-178 180-194	558	2620	2700	610	735	795	901	111,6	80,4	83,6			
	2200			6	219		165-168-178 180-194	808	152-159	840	2620	2700	576	701	761	870	141,3	103,5	106,1			
							249	808	165-168-178 180-194	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

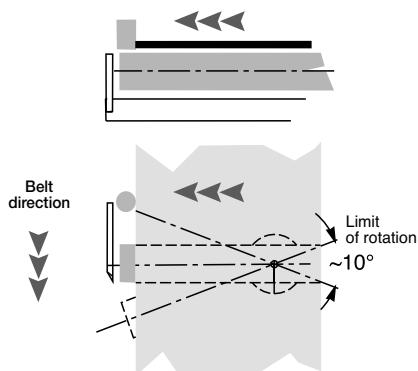


Sometimes even on the return section it is necessary to correct the tracking of the movement of the belt. As with the upper section, the return section self-centering troughing set excercises a corrective action on the belt.

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.

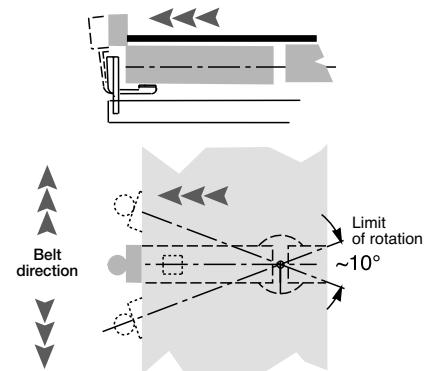
Model S (Q1)



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 20M1660N 100 to be ordered separately.

Model R (Q2)



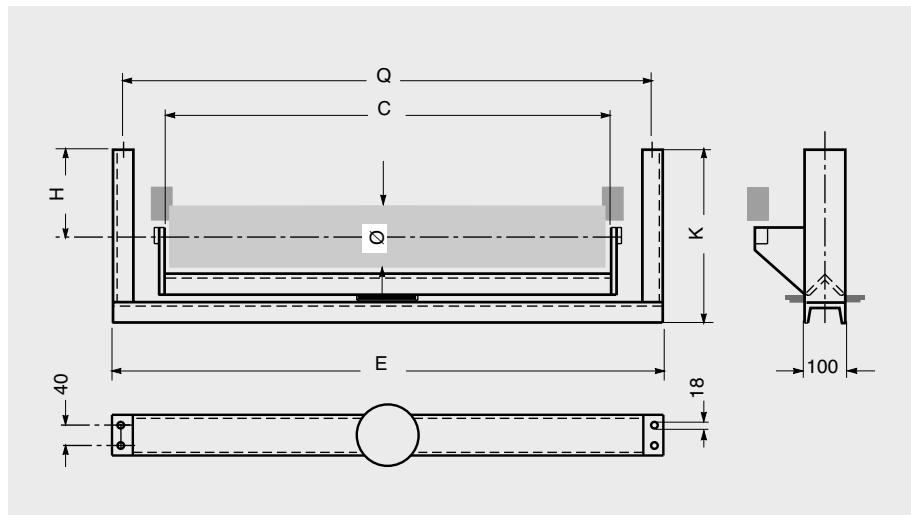
Model R

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 20S1860N 100 to be ordered separately.

3 Troughing sets 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
ø 76, 89, 102
spindle 15
bearing 6202
ch = 17

PSV/1-FHD
ø 89, 108, 133
spindle 20
bearing 6204
ch = 14

Belt width mm	Roller			Self-centering transom					Weight without rollers Kg
	Ø	C mm	ch	Capacity kg	H mm	K mm	Q	E	
400		508		175	70	259	640	700	20.8
500	76-89-102	608		143	70	259	740	800	22.2
650	108-133	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

Q1 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

Belt width mm	Roller			Self-centering transom					Weight without rollers Kg
	Ø	C mm	ch	Capacity kg	H mm	K mm	Q	E	
800		958		158	150	367	1090	1150	32.9
1000		1158		209	150	375	1290	1350	38.6
1200	133	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		958		158	150	387	1090	1150	34.2
1000		1158		209	150	395	1290	1350	39.9
1200	159	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

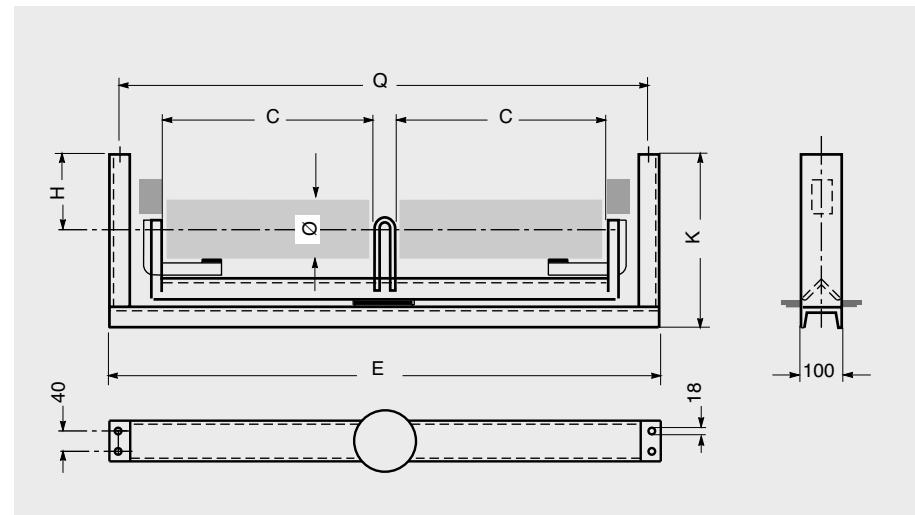
Return roller and guide rollers type PSV/G7-NCD 20M16 60N 100 have to be ordered separately

Example of ordering
Q1L, 800, F 14, 108
Q1P, 1000, F 18, 133, YA
See page 198.

transom self-centralising 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.



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

Belt width mm	Roller			Self-centering transom						Weight without rollers Kg
	Ø	C mm	ch	Capacity kg	H mm	K mm	Q	E		
400		198		175	70	259	640	700	22.7	
500	76-89-102	248		143	70	259	740	800	24.1	
650	108-133	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	

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

Belt width mm	Roller			Self-centering transom						Weight without rollers Kg
	Ø	C mm	ch	Capacity kg	H mm	K mm	Q	E		
800		408		158	150	367	1090	1150	33.2	
1000		508		209	150	375	1290	1350	38.8	
1200	133	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		408		158	150	387	1090	1150	34.3	
1000		508		209	150	395	1290	1350	39.9	
1200	159	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		908		351	175	473	2190	2290	87.5	
2000	159-194	1008		318	175	473	2420	2520	94.2	
2200		1108		440	175	490	2620	2720	117.1	

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 198.