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## General information

We manufacture a complete product line of drive wheels for any kind of belt drive designs which are common in harvesting applications.

It is important that the belting's operational characteristics and the type of belt drive are matched for optimum conveyor reliability and rod life.

The drive wheels can be subdivided into 4 driving methods:

Driving method	Belting profile	Type of drive wheel
Via the rods	Low profiles, double profiles	HS, RT and Z
Via under belt cams	High profiles, double profiles	N
Via rods and cams	High profiles, double profiles	NC
Friction drive	All profiles	FR, FRD, HS and KW

Cast iron forms the heart of all drive options. Most sprockets and drive wheels are splittable to facilitate mounting & replacement. Wheel halves are matching pairs and must not be mixed.

Our drive wheels are supplied bored & keyed to your specification and as required, with one set screw over the key way, optionally also at 90 degrees. We can also supply a 'raw bore' to be machined by yourself.

Clamp fit: Only possible with splittable types. Hub is slightly under bored, plus 1 or 2 optional set screws. Practical when drive shafts are of reasonable close tolerance.

Keyway types and sizes are cut to German DIN (metric) or imperial standards.

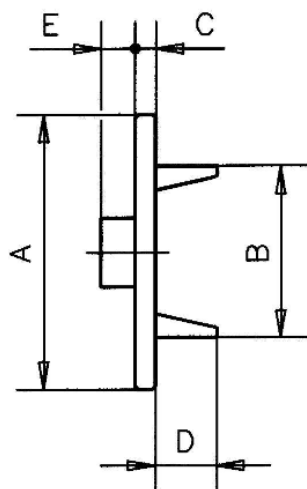
Friction drive types FR, FRD and KW can be used with any belt type and pitch.

Minimum-maximum bore size is indicated in each type's data sheet. Ideally relate to the most popular standard hub types. Alternative hub types may also be possible.

HS type sprockets	Drive teeth operate directly against down convexity rivet rods. The traction belting is supported by the side cage fingers to prevent wear in the tooth root, and to ensure life long constant pitch circle diameter. Base length of flights or rod covering will require sprocket clear ways. On request tips of teeth can be machined down to avoid crop damage. Upon special (volume related) request a 'VN' hub extension is also possible, extending the bore/keyway length into the finger cage area. By adding a Z to the order code (HSZ) you will obtain a unit without cage support fingers, applicable when two are needed on either side of a central traction belt.
3TB type sprockets	Drive teeth operate directly against up convexity rivet rods. They are frequently used in conveyors with 1 or more centre belts, to which the rods are attached by clips or clamps (see chapter 4, centre belt construction). The rod with a centre clamp is mostly positioned higher and therefore demands a larger pitch circle diameter. 3 TB drive wheels are found among drive types HS, RT, NC and Z. Base length of flights or rod covering requires sprocket run clear ways.
RT type sprockets	Similar to the tooth drive HS type but with solid side ring support flange. A scraper is needed to keep the ring's work surface clean. RT units offer perfect pitch circle diameter for severest load applications. They are very popular in sugar beet harvester applications.
Z type sprockets	Toothed drive wheel without under belt. Therefore tooth & rod wear rate will be higher than with HS or RT type drive wheels. Well suited for light duty applications, or when HS or RT type belt support is impractical. Sometimes fitted in place of an end idler roller when soil compaction or rock is a problem. Base length of flights or rod covering requires sprocket run clear ways.
NC type drive wheels	Designed for a cam profile belting drive in combination with a tooth drive of the rod. Primary drive via cage fingers engaging under the cam profile of the belting. Designed to prevent cam drive slip under severe load situations. Then drive teeth engage rods. Base length of flights or rod covering requires sprocket run clear ways. Endless, overlap, BC or E joining clips needed to retain cam profile joint.
N type drive wheels	Designed for cam profile belting.

	<p>Drive via cage fingers engaging under the cam profile of the belting. To obtain best working characteristics select largest operational diameter possible.</p> <p>Types with the codes ST or STH indicate, cage fingers do not contact the rivet retaining plates.</p> <p>Belt guidance offered via the external flange.</p> <p>The securing hub is incorporated inside the support cage area.</p> <p>The base length of flights or rod covering is the distance between the internal belting edges.</p> <p>Endless, overlap, BC or E joining clips needed to retain cam profile joint.</p> <p>Low wear rate, no metal to metal contact. Silent running.</p>
FR type drive wheels	<p>Non-splittable friction drive wheels with rubber lining.</p> <p>Bored &amp; keyed to your specification, requiring at least one set screw over the key way. Optionally with another set screw at 90 degrees.</p> <p>May be used to drive conveyors of any belt pitch or belt profile.</p> <p>The rubber surface offers high rubber to rubber traction, but may require a scraper to be fitted under severe soil compaction conditions. The thick rubber layer minimizes soil compaction via its flexing operating surface.</p> <p>To obtain best working characteristics select largest operational diameter possible.</p> <p>Provide a 'snug' roller at 7 o'clock position for maximum degree of belt wrap.</p> <p>Low wear rate, no metal to metal contact. Silent running.</p>
FRD type drive wheels	<p>Splittable friction drive wheels with rubber lining to reduce fitting time</p> <p>Other features see FR type drive wheels.</p>
KW type drive wheels	<p>A splittable all cast iron range of friction drive wheels. Usage as idler wheel also possible.</p> <p>Under belt cage system is independent of belt pitch.</p> <p>Normally used in conjunction with a low profile type traction belting.</p> <p>Provides a 'snug' roller at 7 o'clock position for maximum degree of belt wrap.</p> <p>Bored &amp; keyed to your specification, requiring at least one set screw over the key way. Optionally with another set screw at 90 degrees.</p> <p>Low wear rate. Silent running.</p>

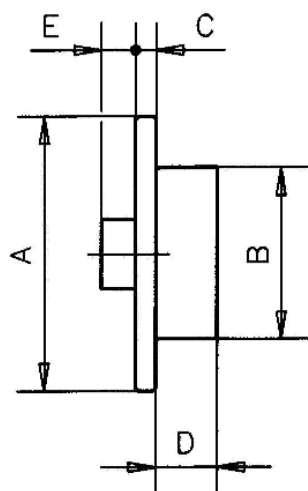
## Friction Wheel, HS-Type



Description	Optional	Pitch T [mm]	Number of teeth [Stk]	Flange A [mm]	Cage diameter B [mm]	Toothwidth C [mm]	Finger length D [mm]	Hub no. Kap. 8-10
HS 28-14		28	14	146	108	18	48	2 - 4
HS 28-16		28	16	165	124	18	48	2 - 4
HS 28-22		28	22	220	180	19	48	2 - 4
HS 32-12		32	12	145	105	22	50	2 - 4
HS 32-18		32	18	202	162	27	50	2 - 4
HS33-16 CU *	*	33	16	200	150	24	55	-
HS 36-10		36	10	135	100	18	50	2 - 4
HS 36-12		36	12	168	118	23	50	2 - 4
HS 36-14		36	14	190	140	18	50	2-3
HS 36-16		36	16	210	166	24	48	2-3
HS 36-18		36	18	245	191		80	
HS 36-18		36	18	235	187	25	50	2-3
HS 40-10		40	10	160	110	21	50	1
HS 40-14 WM *	*	40	14	220	167	35	50	3
HS 40-16		40	16	229	185	25	50	2-3
HS 42-10		42	10	163	113	21	50	2 - 4
HS 42-12		42	12	190	140	27	48	2 - 4
HS 42-14		42	14	218	173	26	48	2-3
HS 42-16		42	16	240	194	20	45	2 - 3
HS 45- 9		45	9	160	110	21	50	4
HS 45-12		45	12	200	153	25	50	2-3
HS 45-14		45	14	230	180	25	50	2-3
HS 50- 8		50	8	150	109	25	50	2-4
HS 50-10		50	10	195	142	26	50	2-3
HS 50-12		50	12	220	173	30	50	3
HS 50-14		50	14	265	205	18	50	3
HS 50-16		50	16	270	208	30	70	3
HS 64-10		64	10	243	189	26	50	3

WM special drawing  
 CU Convexity up

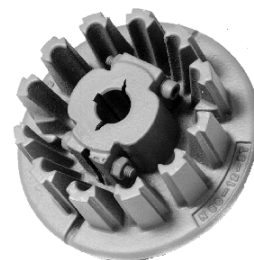
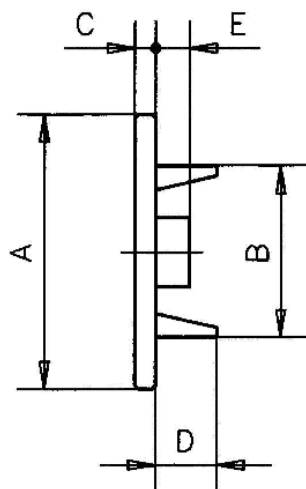
## Friction Wheel, RT-Type



Description	Optional	Pitch T [mm]	Number of teeth [Stk]	Flange A [mm]	Cage diameter B [mm]	Ringwidth C [mm]	Finger length D [mm]	Hub no. Kap. 8-10
RT 33-12 CU		33	12	164	110	22	50	
RTN 35-17 CU		35	17	234	177	16	50	
RT 42-12		42	12	192	144	24	60	3
RT 45-14		45	14	254	184	25	60	3
RT 50-10		50	10	205	144	25	60	
RT 50-14		50	14	264	204	30	65	3
RT 50-14		50	14	270	208		70	
RT 56-10		56	10	230	165	30	60	3

CU Convexity up  
 RT for low profile  
 RTN for high profile

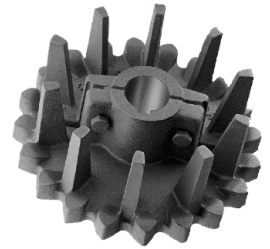
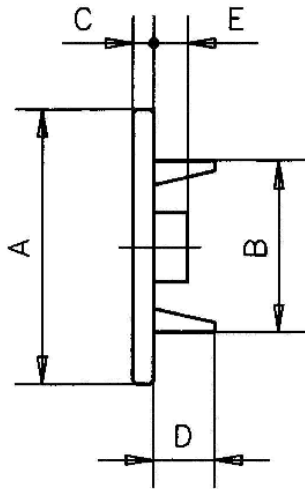
## Friction Wheel, N-Type



Description	Optional	Pitch T [mm]	Number of teeth [Stk]	Flange A [mm]	Cage diameter B [mm]	Toothwidth C [mm]	Finger length D [mm]	Hub no. Kap. 8-10
N 28-24-12 ST		28	12	243	200	10	50	
N 35-17		35	17	215	175	10	65	2
N 35-27		35	27	325	288	11	80	1
N 40-10		40	10	280	242	9	63	
N 40-14 (*)		40	14	215	166	8	60	2
N 40-15		40	15	223	175	5	70	2
N 40-16-8		40	8	225	194	10	75	2
N 40-18-9		40	9	252	217	10	75	2
N 40-18	*	40	18	260	217	8	65	5
N 40-18 (***)		40	18	260	216	8	75	
N 40-18	*	40	18	260	242		< l	
N 50-10 (**)		50	10	-	148		65	2
N 50-12		50	12	220	176	8	65	2
N 50-12 (IT)	*	50	12	-	-		< l	
N 50-12 (STH)		50	12	219	178	9	65	
N 50-14 (***)		50	14	255	209.5	8	80	
N 50-14		50	14	258	210	10	60	2
N 50-14 (STH)		50	14	243	209	9	65	
N 60-12 (***)		60	12	260	216	8	80	

- \* not splittable  
 \*\* without flange, hub is on the outside  
 \*\*\* without hub  
 IT FMC Italy without hub  
 ST special tooth shape  
 STH special tooth height

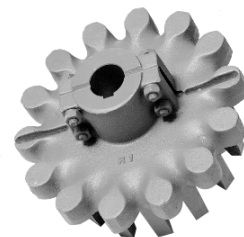
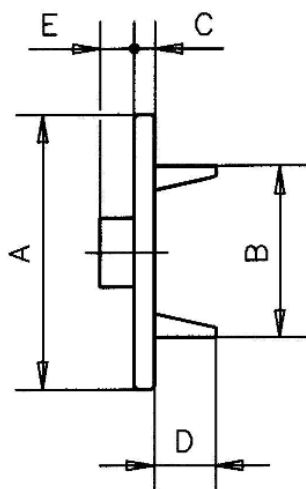
## Friction Wheel, NC-Type



Description	Optional	Pitch T [mm]	Number of teeth [Stk]	Flange A [mm]	Cage diameter B [mm]	Toothwidth C [mm]	Finger length D [mm]	Hub no. Kap. 8-10
NC 35-20		35	20	252	210	25	70	3
NC 44-16 (*)		44	16	265	207	20	50	3
NC 50-12		50	12	243	178	30	75	3
NC 50-14		50	14	260	210	15	75	3
NC 50-14 V (*)		50	14	270	210	30	75	3
NC 50-16 V (*)		50	16	300	240	30	75	3

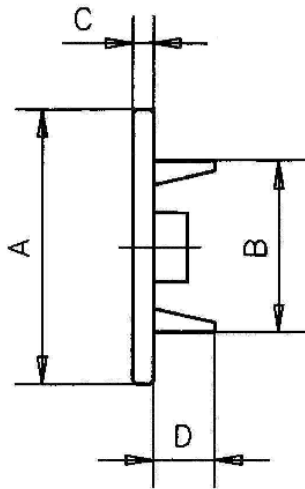
\* hub is on the outside

## Friction Wheel, 3TB-Type



Description	Optional	Pitch T [mm]	Number of teeth [Stk]	Flange A [mm]	Cage diameter B [mm]	Toothwidth C [mm]	Finger length D [mm]	Hub no. Kap. 8-10
HS 28-22 3TB		28	22	225	180	27	50	2-3
HS 36-10 3TB		36	10	145	98	18	52	4
HS 36-16 3TB		36	16	213	162	30	64	3
HS 36-18 3TB		36	18	246	189	26	50	3
HS 42-14 3TB		42	14	226	169	26	60	3
HS 42-16 3TB		42	16	252	194	26	50	2-3
HS 45-14 3TB		45	14	237	182	26	50	3
HS 50-14 3TB		50	14	273	208	30	50	3
RT 50-14 3TB		50	14	279	205	29	65	3
RT 50-14 3TBW		50	14	289	205	29	65	3
NC 40-18-9 3TB		40	9	260	215	25	60	3
Z 42-14 3TB		42	14	225	-	26		3

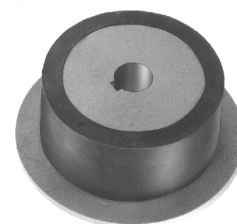
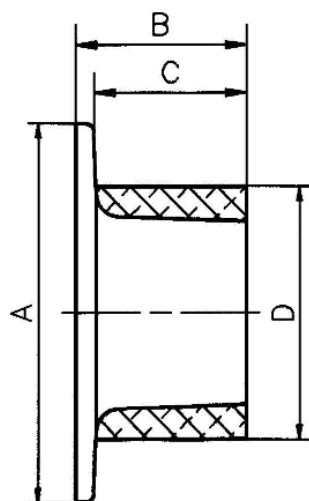
## Friction Wheel, KW-Type



Description	Optional	Flange A [mm]	Cage diameter B [mm]	Toothwidth C [mm]	Finger length D [mm]	Diameter K [mm]
KW 80		80	125	10	45	20-25
KW 100		100	150	10	60	20-30
KW 115		115	165	10	60	20-30
KW 160 (*)		160	215	10	60	25-40
KW 255		255	290	11	55	25-40

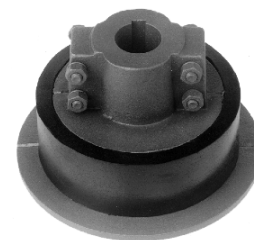
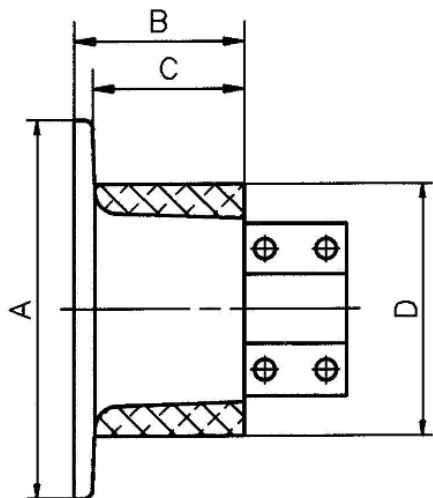
\* splittable for easy mounting

## Friction-driving wheel, HS-Type



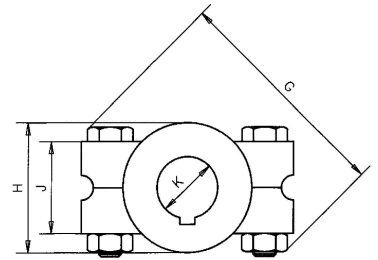
Description	Optional	diameter Ø D [mm]	Flange A [mm]	Width B [mm]	Support width C [mm]	Bore Ø min.-max. [mm]
HS 11 R		110	148	62	53.5	25 - 50
HS 11 RZ		110		62	62	25 - 50
HS 14 R		140	180	67	56.5	25 - 50
HS 14 RZ		140		67	67	25 - 45
HS 18 R		180	248	67	57	25 - 45
HS 18 RZ		180		67	67	25 - 50
HS 21 R		210	240	75	65	25 - 50
HS 21 RZ		210		65	65	25 - 50
HS 24 R		240	300	70	58.5	25 - 50
HS 24 RZ		240		65	65	25 - 50
HS 41 R		410	448	89	63.5	25 - 50

## Friction-driving wheel, FRD-Type



Description	Optional	diameter $\emptyset$ D [mm]	Flange A [mm]	Width B [mm]	Support width C [mm]	Bore $\emptyset$ min.-max. [mm]
FRD 14 R		140	180	125	56	25 - 45
FRD 14 RZ		140		125	64	25 - 45
FRD 18 R		180	220	131	60	25 - 50
FRD 18 RZ		180		131	68	25 - 50
FRD 20 R		200	260	155	80	25 - 50

## Hubs



Description	Optional	Hub no. Kap. 8-10	Hub lenght E [mm]	Height G [mm]	Height H [mm]	Height J [mm]	Diameter K [mm]
Hubs		1	63	90	58	33	25-40
Hubs		2	60	100	65	40	25-40
Hubs		3	61	120	85	43	35-60
Hubs		4	30	100	60	40	25-40
Hubs		5	60	130	80	40	35-60

## Friction Wheel, Z-Type



Description	Optional	Pitch T [mm]	Number of teeth [Stk]	Flange A [mm]	Toothwidth C [mm]	Hub no. Kap. 8-10
Z 28-14		28	14	150	22	2
Z 42-10	*	42	10	150	22	2
Z 42-14	*	42	14	227	18	3
Z 45-8	*	45	8	140	22	4
Z 45-10	*	45	10	170	22	2
Z 50-10	*	50	10	210	27	2