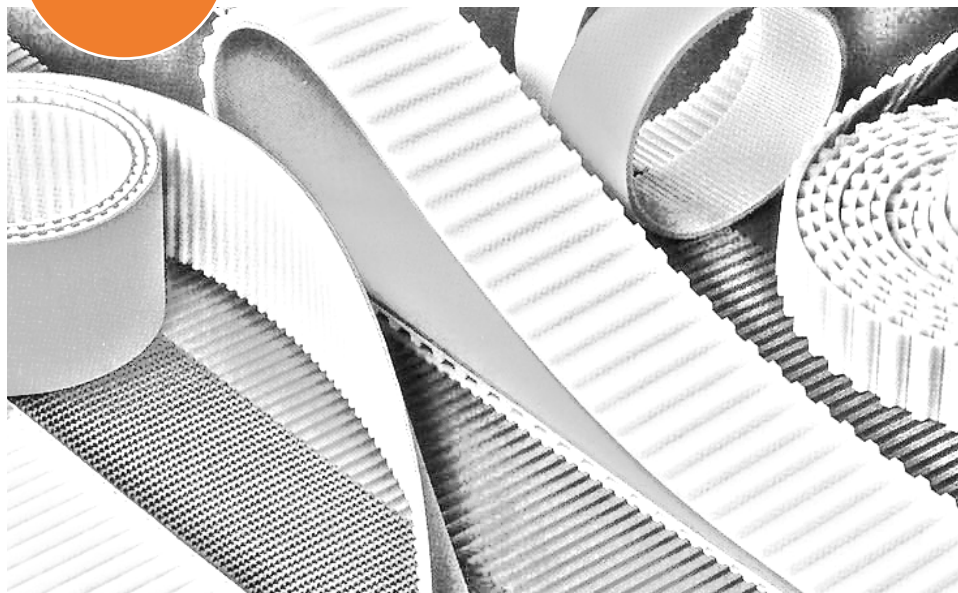


Technical  
Booklet



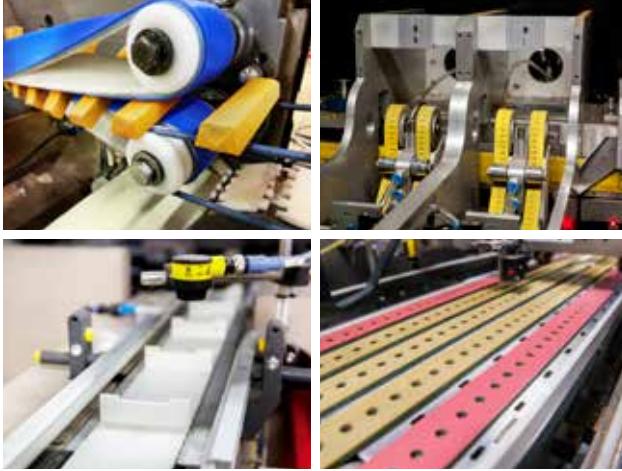
# Timing & Engineered Belts

Technical Specifications & Covering Materials

# Timing Belts – precision and reliability

More and more industries around the world are relying on the advantages that Ammeraal Beltech Timing Belts offer.

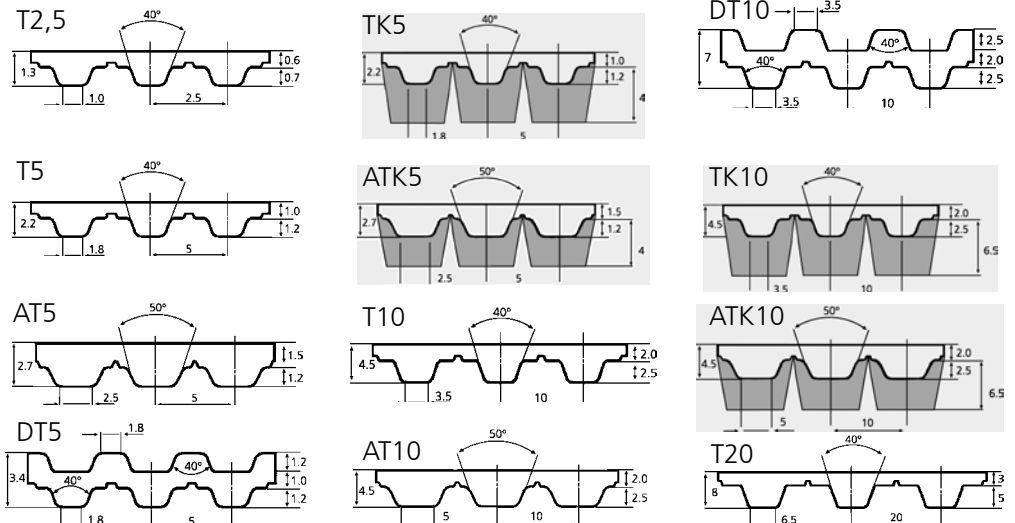
From slip-free or synchronous conveying to precise positioning, our Timing Belts deliver perfect performance and are your guarantee that everything will be where it needs to be, when it needs to be there.



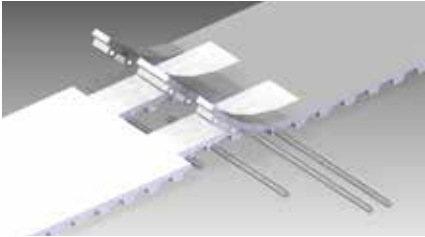
Ammeraal Beltech Timing Belts are at work in a wide range of industrial applications and environments:

- Airport baggage handling systems
- Logistics industry
- Food industry
- Print & Paper industry
- Packaging industry
- Wood industry
- Ceramic industry
- Automotive industry
- Tobacco industry
- Chemical industry
- Glass processing
- Linear positioning
- Electronics assembly lines
- Power transmission

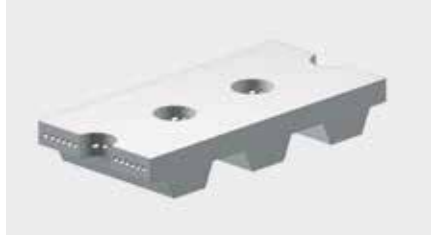
## Types



## Endlessing



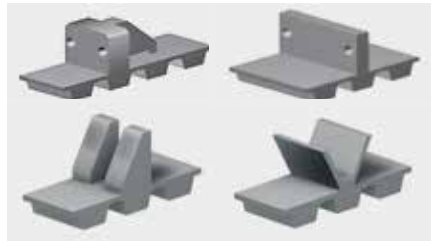
## Machining



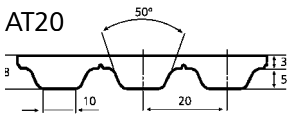
## Vee-guides



## Cleats



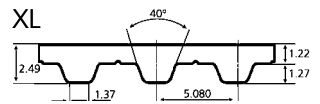
AT20



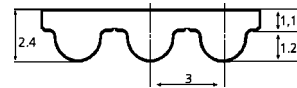
HTD14



XL



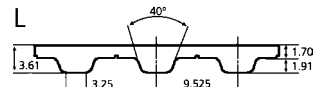
HTD3



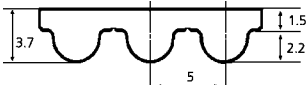
STD5



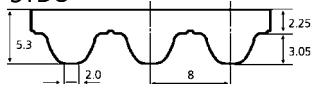
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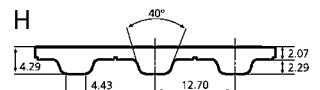
HTD5



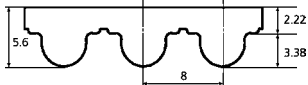
STD8



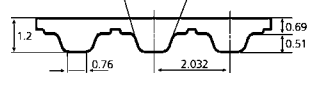
H



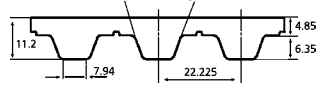
HTD8



MXL



XH



# Technical Specifications

Type	Belt data				Minimum pulley diameter					
	Pitch [mm]	thickness (moulded) [mm]	weight [kg/m <sup>2</sup> ]	a) without counter flexing			b) with counter flexing			
				d1 [mm]	t1 [-]	d2 [mm]	d1 [mm]	d1 [mm]	t1 [-]	
T2.5 steel	2,5	1,6 (1,3)	1,1	7,46	10	15	11,44	15	15	
T5 steel *	5	2,2	2,1	15,05	10	30	23,05	15	30	
T5 steel NTB AS	5	2,2	2,1	15,05	10	30	23,05	15	30	
T5 aramid	5	2,2	2	15,05	10	25	23,05	15	25	
AT5 steel	5	2,7	3,4	22,64	15	30	38,56	25	60	
ATL5 steel	5	2,7	3,8	38,56	25	40	38,56	25	60	
TT5 steel	5	2,8	2,7	23,05	15	30	38,92	25	40	
TT5 aramid	5	2,8	2,6	23,05	15	30	38,92	25	40	
DT5 steel	5	2,2	2,7	15,05	10	30	23,05	15	30	
TK5 steel	5	2,2	2,6	38,92	25	60	38,92	25	80	
ATK5 steel	5	2,7	3,8	38,56	25	60	38,56	25	80	
T10 steel	10	4,5	4,5	36,35	12	60	61,81	20	60	
T10 aramid */ **	10	4,5	4	36,35	12	50	61,81	20	50	
AT10 steel	10	4,5	6,4	45,9	15	50	77,73	25	120	
AT10 steel HF	10	4,5	6,4	36,35	12	50	61,81	20	100	
AT10 aramid	10	4,5	4,4	45,9	15	50	77,7	25	120	
ATL10 steel	10	4,8	6,9	77,73	25	80	77,73	25	150	
DT10 steel	10	4,5	5,7	36,35	12	60	61,81	20	60	
TK10 steel	10	4,5	5,3	77,73	25	80	77,73	25	80	
ATK10 steel	10	4,5	7,2	77,73	25	80	77,73	25	120	
T20 steel	20	8	7,7	92,64	15	120	156,32	25	120	
T20 aramid	20	8	6,4	92,64	15	100	156,32	25	100	
AT20 steel	20	8	9,7	111,75	18	120	156,32	25	180	
ATL20 steel	20	8,4	11,2	156,32	25	160	156,32	25	250	
HTD 3M steel	3	2,4	2	14,52	16	40	18,34	20	50	
HTD 5M steel	5	3,7	4,8	24,32	16	50	30,69	20	50	
HTD 8M steel	8	5,6	6,9	44,46	18	50	44,46	18	120	
HTD 14M steel	14	10	11,3	122,13	28	120	122,13	28	180	
STD 5M steel	5	3,35	4,6	24,5	16	50	30,87	20	50	
STD 8M steel	8	5,3	6,6	44,46	18	50	44,46	18	120	
MXL steel	2,032	1,2	1,2	9,19	15	15	11,13	18	15	
XL steel	5,08	2,49	2,4	15,66	10	30	23,75	15	30	
XL aramid	5,08	2,49	1,8	15,66	10	25	23,75	15	25	
L steel	9,525	3,61	3,9	44,72	15	60	59,88	20	60	
L aramid	9,525	3,61	3,6	44,72	15	50	59,88	20	50	
H steel	12,7	4,29	4,3	55,23	14	60	79,48	20	80	
H aramid	12,7	4,29	3,5	55,23	14	50	79,48	20	65	
XH steel	22,225	11,2	10,6	124,54	18	150	138,69	20	180	
XH aramid	22,225	11,2	9,9	124,54	18	120	138,69	20	150	
F1 steel	-	1	1,8	16	-	16	30	-	30	
F2 steel	-	2	3,4	50	-	50	100	-	100	
F4 steel	-	4	8	120	-	120	150	-	150	
Eagle 8M steel NT	8	5,33	6	50,96	20	51	63,69	25	100	
Eagle 10M steel NT	10	6,1	7,4	79,62	25	96	101,91	32	150	
Eagle 14M steel NT	14	8,64	11,4	142,68	32	160	178,34	40	250	

Specials on request:

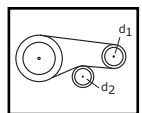
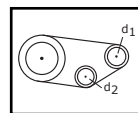
\* no coil nose (NC) available

\*\* extra wide with less tension member available

\*\*\* no coil nose (NC) + aramid available

d1 and d2 = diameter of the pulley [mm]

t1 = teeth number of pulley 1



a) without counter flexing

b) with counter flexing

## Tensile strength

Type	Fal open end [N]	Fal welded [N]	Fbr break load [N]	Cspec [x 1000 N]
T2.5 steel	1440	720	6000	360
T5 steel *	1690	845	7650	450
T5 steel NTB AS	1690	845	7650	450
T5 aramid	1800	900	9500	409
AT5 steel	3500	1750	12800	875
ATL5 steel	5060	1750	18400	1265
TT5 steel	1690	845	7650	450
TT5 aramid	1800	900	9500	409
DT5 steel	1690	845	7650	450
TK5 steel	1690	845	7650	450
ATK5 steel	3500	1750	12800	875
T10 steel	4200	2100	16050	1320
T10 aramid */ **	3970	1985	15200	861
AT10 steel	7500	3750	30000	1960
AT10 steel HF	6200	3100	25000	1623
AT10 aramid	7125	3560	28400	1696
ATL10 steel	14500	3750	50100	3625
DT10 steel	4200	2100	16050	1320
TK10 steel	4200	2100	16050	1320
ATK10 steel	7500	3750	30000	1960
T20 steel	6500	3250	26500	1760
T20 aramid	5700	2850	24000	1220
AT20 steel	11700	5850	32500	3000
ATL20 steel	16000	5850	62700	3990
HTD 3M steel	1560	780	6500	390
HTD 5M steel	5060	2530	18400	1265
HTD 8M steel	7170	3585	30400	1792
HTD 14M steel	13000	6500	44980	3250
STD 5M steel	5060	2530	18400	1265
STD 8M steel	7170	3585	30400	1792
MXL steel	630	350	2550	-
XL steel	1500	750	6250	375
XL aramid	2000	1000	10000	337,5
L steel	3560	1780	14930	840
L aramid	3320	1660	14220	756
H steel	3560	1780	14930	840
H aramid	3300	1650	14220	768
XH steel	6500	3250	26500	1760
XH aramid	5600	2800	23500	1584
F1 steel	1800	900	7500	450
F2 steel	7040	3520	30400	1760
F4 steel	16800	8400	66000	4200
Eagle 8M steel NT	8640	4300	30250	2160
Eagle 10M steel NT	14000	7000	52500	3600
Eagle 14M steel NT	14700	7350	55800	3675

Also available: All major pitch and configurations of neoprene – fiberglass Timing Belts and Poly Vee-belts.

# Covering Materials

## Rubber

Type	Material	Hardness [ ° ShA ]	Density [ kg / m³ ]	Color	Max. contact temperature [ ° C ]	Oil and fat resistance	Static coeff. of friction to steel	Food grade	Pulley factor	Standard thickness [ mm ]
NRS 035 yellow	natural rubber	35	990	yellow	65	low	1.2	no	13	3, 4, 5, 6, 8, 10, 12, 15, 20, 25, 30
NRS 040 red	natural rubber	40	980	red	70	low	1.0	no	15	1.6, 2.4, 3.2, 5, 6, 8, 10, 12, 15
NRS 040 white FG	natural rubber	40	1000	white	70	limited	1.0	yes	15	2, 3, 5, 6, 8, 10
NRS 040 beige	synthetic rubber	40	1000	beige	70	low	1.1	no	15	4, 6, 8, 10, 12, 15
NRS 060 red	natural rubber	60	1100	red	75	low	0.9	no	17	3, 5, 6, 8, 10, 12, 20, 25
NRS 070 purple	natural rubber blend	70	1130	purple	75	limited	0.6	no	20	3, 4, 5, 6, 8, 10, 12, 15, 20, 25
NTS 065 white FG	nitrile rubber	65	1300	white	80	good	0.8	yes	18	5, 10
NTS 060 black	nitrile rubber	60	1300	black	110	good	0.7	no	18	4, 6, 8, 10, 12
NTS 070 green	nitrile rubber	70	1200	green	100	good	0.7	no	25	1, 2
CXS 065 C37 blue	nitrile rubber	65	750	blue	120	excellent	0.9	no	20	4, 3
SRS 040 C37 tan	synthetic rubber	40	800	tan	80	limited	1.0	no	15	4, 3
NTS 050 C37 red	nitrile rubber	50	1200	red	120	excellent	0.7	no	20	4, 3
SRS 040 N19 white	synthetic rubber	40	1700	white	80	limited	na	no	20	2

## PU & PVC

Type	Material	Hardness [ ° ShA ]	Density [ kg / m³ ]	Color	Max. contact temperature [ ° C ]	Oil and fat resistance	Static coeff. of friction to steel	Food grade	Pulley factor	Standard thickness [ mm ]
PUS 060 blue/black	Polyurethane	60	1150	blue, black	80	good	0.9	no	25	2, 5
PUS 080 transparent	Polyurethane	80	1110	transp.	80	good	0.8	no	30	1, 2, 3, 4
PUS 085 blue AM FG	TPU Ropanyl	85	1230	blue	80	excellent	0.6	yes	30	1, 5
PUS 085 A16 blue AM FG	TPU Ropanyl	85	860	blue	80	excellent	na	yes	20	2, 5
PUS 085 A5 blue FG	TPU Ropanyl	85	950	blue	80	excellent	na	yes	15	3, 5
PUS 092 white	Polyurethane	92	1300	white	80	excellent	0.6	no	30	2, 3
PUS 080/BS white	PU Ropan BS	80	1000	white	80	good	0.4	no	25	2, 3, 4
PVS 030 P6 green/blue	PVC Flexam	30	780	blue, green	90	limited	0.9	no	15	4
PVS 030 P7 blue	PVC Flexam	30	800	blue	90	limited	0.9	no	15	4
PVS 035 blue	PVC Flexam	35	1390	blue	90	limited	1.1	no	20	1, 2, 3
PVS 065 A24 white FG	PVC Nonex	65	660	white	90	good	na	yes	18	4
PVS 065 FG blue/white	PVC Nonex	65	1330	blue, white	90	good	0.7	yes	25	2, 3, 4
PVS 065 blue AM FG	PVC Nonex	65	1330	blue	90	good	0.7	yes	25	1, 5
PVC 065 P13 white	PVC Nonex	65	750	white	90	good	na	yes	18	4
SRS 040 N19 white	synthetic rubber	40	1700	white	80	limited	na	no	20	2

## Cellular

Type	Material	Hardness [ ° ShA ]	Density [ kg / m³ ]	Color	Max. contact temperature [ ° C ]	Oil and fat resistance	Static coeff. of friction to steel	Food grade	Pulley factor	Standard thickness [ mm ]
NRS 160 grey/orange	natural rubber, open cellular	-	160	orange, grey	65	low	1.0	no	6	5, 10, 15, 20, 25, 30
NRS 200 black	natural rubber, open cellular	-	200	black	65	low	1.0	no	6	3, 5, 8, 10, 15,
NRS 250 orange	natural rubber, open cellular	-	250	orange	65	low	1.0	no	8	5, 10, 15, 20, 25, 30
NRS 270 green	natural rubber, open cellular	-	270	green	65	low	1.0	no	8	5, 10, 15
NES 290 black	neoprene rubber, closed cellular	-	290	black	85	good	1.3	no	10	5.5, 7, 10.5, 13, 30
FBS 160 blue	fabric covered cellular neoprene	-	160	blue	70	good	0.3	no	15	3, 6
PUS 220 blue	cellular polyurethane	-	220	blue	70	good	0.5	no	12	5, 7, 11, 12, 14, 25
PUS 300 green	cellular polyurethane	-	300	green	70	good	0.5	no	14	4, 5, 7, 10, 11, 12, 14, 25
PUS 400 brown	cellular polyurethane	-	400	brown	70	good	0.5	no	15	3, 5, 11, 12, 14, 25
PUS 400 beige	cellular polyurethane	-	400	beige	80	good	0.3	no	16	1, 2, 3, 4, 5, 6
PUS 600 yellow	micro cellular polyurethane	50	600	yellow	70	excellent	0.4	no	20	2, 3, 4, 5, 6, 8, 10

## Special

Type	Material	Hardness [ ° ShA ]	Density [ kg / m³ ]	Color	Max. contact temperature [ ° C ]	Oil and fat resistance	Static coeff. of friction to steel	Food grade	Pulley factor	Standard thickness [ mm ]
PRS 060 blue/red	thermoplastic technopolymer	60	1030	blue, red	+80	good	0.9	no	25	2.3
CLS 925 grey	chrome leather	-	930	grey	+80	excellent	0.8	no	30	3
NPS 055 brown/white	needle punched polyester fabric	-	560	brown, white	+80	good	0.3	no	25	2.5 (white: 2)
PES 999 grey	polyester fabric	-	1400	grey	+80	good	0.3	no	25	2.0
PAS 778 green	nylon fabric	-	220	green	+80	good	0.3	no	-	0.5
PLS 035 red	Pletex poly blend	35	1385	red	+90	limited	0.9	no	20	2, 3, 4
AMS 090 A16 ivory	Armtel polyester	90	450	ivory	+100	excellent	na	yes	30	2.5
SIS 060 blue	silicone rubber	60	1600	blue	+220	good	0.6	no	17	3.2, 5.0, 7.0
SIS 040 I bl. FG, white	silicone rubber Silam	40	1120	blue, white	+250	excellent	1.3	yes	15	01-10
ELS 060 green	Elastonyl technopolymer	60	1060	green	+80	good	0.9	no	25	2.4
KFS 999 yellow <sup>1)</sup>	Aramid felt	-	320	yellow	+480 <sup>2)</sup>	good	0.3	no	na	10

<sup>1)</sup> also available PBO felt +600°C, Nomex felt + 280°C, Polyester felt +180°C

<sup>2)</sup> surface contact temperature

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Modular Belts



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