



DRIVEN BY POSSIBILITY™

GATES TPU:

SYNCHRO POWER™ FLEX BELT



DESIGNED FOR FOOD PROCESSING AND CORROSIVE ENVIRONMENT

Gates TPU expanded the Synchro-Power Flex belt range with stainless steel cord versions. In addition the T10 pitch is now also available with Aramid reinforcement. This allows the Gates Synchro-Power Flex belt to work in corrosive environment. Furthermore Gates can produce the Synchro-Power Flex belt with a food grade TPU resin, which in combination with the stainless steel or Aramid cord make the belt versions fit for direct food contact on the back side.

The helically wound cord provide high tensile strength and high stiffness for high performance and accuracy.

For non food applications, an optional wear-resistant Nylon fabric on tooth side provides high abrasion resistance and smooth operation.

Gates TPU belts combine the durability of Gates quality products with optimal lead times and a reliable partnership - making Gates TPU belts the number one choice for polyurethane belts.

FEATURES + BENEFITS

- Available in various pitches
- No corrosion with stainless steel cord
- Helically wound cord for highest strength
- Optional FDA conform and EU certified
- Optional with Nylon fabric on tooth side

SYNCHRO-POWER FLEX STAINLESS STEEL FDA



PRODUCT DATA

Pitches available	T10, T20, AT10, ATL10, AT20 ATL20, HTD8, HTD14, H
Sleeve Width	150 mm
width tolerance	< 50mm width: +0,50 mm > 50mm width: +0,75 mm
Length Range	1600 - 12000 mm
min length of belt with NT	1750 mm
Standard Color	White
FDA / EU Approval	YES
Polyamide Fabric	Optional NT

POLYURETHANE	HARDNESS [°ShoreA]	TEMPERATUR RANGE [°C]	FEATURE
R23	90	-5 to +70	Standard
R23T	90	-30 to +50	Low Temperature
R23F	90	-5 to +70	On the back side

MIN PULLEY TOOTH COUNT AND DIAMETER

				T10 STAINLESS STEEL	T10K	T20 STAINLESS STEEL	AT10 STAINLESS STEEL	ATL10 STAINLESS STEEL	AT20 STAINLESS STEEL	ATL20 STAINLESS STEEL	HTD8 STAINLESS STEEL	HTD14 STAINLESS STEEL	H STAINLESS STEEL
No back bending		z min	min # of teeth	18	14	20	25	32	22	26	25	32	18
		d min	min diameter [mm]	70	45	130	80	100	140	166	64	142	73
Back bending		z min	min # of teeth	25	20	25	40	40	30	32	30	44	24
		d min	min diameter [mm]	80	60	130	120	160	200	260	150	200	80

SYNCHRO-POWER FLEX STAINLESS STEEL FDA



TECHNICAL DATA

STANDARD WIDTH [MM]			16	25	32	50	75	100	150
Pitch	Reinforcement								
Breaking Force	Average Value								
T10	STAINLESS STEEL	[N]	3.400	5.780	7.480	11.900	18.020	24.140	36.380
T10K	ARAMID	[N]	5.390	9.163	11.858	18.865	28.567	38.269	57.673
T20	STAINLESS STEEL	[N]	N/A	12.113	15.675	24.938	37.763	50.588	76.238
AT10	STAINLESS STEEL	[N]	N/A	12.113	15.675	24.938	37.763	50.588	76.238
ATL10	STAINLESS STEEL	[N]	N/A	16.170	20.580	33.810	51.450	69.090	104.370
AT20	STAINLESS STEEL	[N]	N/A	N/A	20.580	33.810	51.450	69.090	104.370
ATL20	STAINLESS STEEL	[N]	N/A	N/A	24.750	40.500	60.750	83.250	126.000
Allowable Belt Force									
T10	STAINLESS STEEL	[N]	1.048	1.782	2.306	3.669	5.556	7.442	11.216
T10K	ARAMID	[N]	704	1.196	1.548	2.463	3.730	4.997	7.531
T20	STAINLESS STEEL	[N]	N/A	3.156	4.085	6.499	9.841	13.183	19.867
AT10	STAINLESS STEEL	[N]	N/A	3.156	4.085	6.499	9.841	13.183	19.867
ATL10	STAINLESS STEEL	[N]	N/A	3.525	4.486	7.370	11.215	15.061	22.751
AT20	STAINLESS STEEL	[N]	N/A	N/A	4.486	7.370	11.215	15.061	22.751
ATL20	STAINLESS STEEL	[N]	N/A	N/A	6.110	9.999	14.998	20.553	31.107
Allowable Effective Force Minimum 12 Teeth in mesh									
T10	STAINLESS STEEL	[N]	910	1.423	1.821	2.845	4.268	5.690	8.535
T10K	ARAMID	[N]	910	1.423	1.821	2.845	4.268	5.690	8.535
T20	STAINLESS STEEL	[N]	N/A	3.075	3.936	6.150	9.225	12.300	18.450
AT10	STAINLESS STEEL	[N]	N/A	2.580	3.302	5.160	7.740	10.320	15.480
ATL10	STAINLESS STEEL	[N]	N/A	2.580	3.302	5.160	7.740	10.320	15.480
AT20	STAINLESS STEEL	[N]	N/A	N/A	6.976	10.900	16.350	21.800	32.700
ATL20	STAINLESS STEEL	[N]	N/A	N/A	6.976	10.900	16.350	21.800	32.700
Belt Weight									
T10	STAINLESS STEEL	[kg/m]	0,07	0,11	0,14	0,22	0,34	0,45	0,67
T10K	ARAMID	[kg/m]	0,06	0,09	0,12	0,18	0,27	0,36	0,54
T20	STAINLESS STEEL	[kg/m]	N/A	0,19	0,24	0,37	0,56	0,75	1,12
AT10	STAINLESS STEEL	[kg/m]	N/A	0,14	0,18	0,29	0,43	0,57	0,86
ATL10	STAINLESS STEEL	[kg/m]	N/A	0,17	0,21	0,34	0,50	0,67	1,01
AT20	STAINLESS STEEL	[kg/m]	N/A	N/A	0,31	0,49	0,73	0,97	1,46
ATL20	STAINLESS STEEL	[kg/m]	N/A	N/A	0,34	0,53	0,80	1,06	1,59
Specific Belt Stiffness									
T10	STAINLESS STEEL	[N]	262.059	445.500	576.529	917.206	1.388.912	1.860.618	2.804.029
T10K	ARAMID	[N]	175.946	299.109	387.082	615.813	932.516	1.249.220	1.882.627
T20	STAINLESS STEEL	[N]	N/A	789.118	1.021.211	1.624.654	2.460.191	3.295.727	4.966.800
AT10	STAINLESS STEEL	[N]	N/A	789.118	1.021.211	1.624.654	2.460.191	3.295.727	4.966.800
ATL10	STAINLESS STEEL	[N]	N/A	881.203	1.121.531	1.842.515	2.803.828	3.765.140	5.687.765
AT20	STAINLESS STEEL	[N]	N/A	N/A	1.121.531	1.842.515	2.803.828	3.765.140	5.687.765
ATL20	STAINLESS STEEL	[N]	N/A	N/A	1.527.600	2.499.709	3.749.564	5.138.291	7.776.873

SYNCHRO-POWER FLEX STAINLESS STEEL FDA



TECHNICAL DATA

STANDARD WIDTH [MM]				20	25	30	50	85	100	150
Pitch		Reinforcement								
Breaking Force	Average Value									
HTD8		STAINLESS STEEL	[N]	9.263	12.113	14.250	24.938	42.750	50.588	76.238
Allowable Belt Force										
HTD8		STAINLESS STEEL	[N]	2.414	3.156	3.713	6.499	11.140	13.183	19.867
Allowable Effective Force	Minimum 12 Teeth in mesh									
HTD8		STAINLESS STEEL	[N]	1.860	2.325	2.790	4.650	7.905	9.300	13.950
Belt Weight										
HTD8		STAINLESS STEEL	[kg/m]	0,14	0,17	0,20	0,34	0,58	0,68	1,02
Specific Belt Stiffness										
HTD8		STAINLESS STEEL	[N]	603.443	789.118	928.374	1.624.654	2.785.121	3.295.727	4.966.800

STANDARD WIDTH [MM]				25	40	55	85	115	170
Pitch		Reinforcement							
Breaking Force	Average Value								
HTD14		STAINLESS STEEL	[N]	16.170	26.460	36.750	57.330	79.380	117.600
Allowable Belt Force									
HTD14		STAINLESS STEEL	[N]	3.525	5.768	8.011	12.497	17.304	25.635
Allowable Effective Force	Minimum 12 Teeth in mesh								
HTD14		STAINLESS STEEL	[N]	4.313	6.900	9.488	14.663	19.838	29.325
Belt Weight									
HTD14		STAINLESS STEEL	[N]	0,27	0,43	0,59	0,92	1,24	1,84
Specific Belt Stiffness									
HTD14		STAINLESS STEEL	[N]	881.203	1.441.969	2.002.734	3.124.265	4.325.906	6.408.749

STANDARD WIDTH [MM]				0,75" (19,05MM)	1" (25,4MM)	1,5" (38,1MM)	2" (50,8MM)	3" (76,2MM)	4" (101,6MM)	6" (152,4MM)
Pitch		Reinforcement								
Breaking Force	Average Value									
H		STAINLESS STEEL	[N]	4.080	5.780	8.840	11.900	18.020	24.480	36.720
Allowable Belt Force										
H		STAINLESS STEEL	[N]	1.258	1.782	2.725	3.669	5.556	7.547	11.321
Allowable Effective Force	Minimum 12 Teeth in mesh									
H		STAINLESS STEEL	[N]	1.238	1.650	2.475	3.300	4.950	6.600	9.900
Belt Weight										
H		STAINLESS STEEL	[kg/m]	0,08	0,10	0,15	0,20	0,31	0,41	0,61
Specific Belt Stiffness										
H		STAINLESS STEEL	[N]	314.471	445.500	681.353	917.206	1.388.912	1.886.824	2.830.235