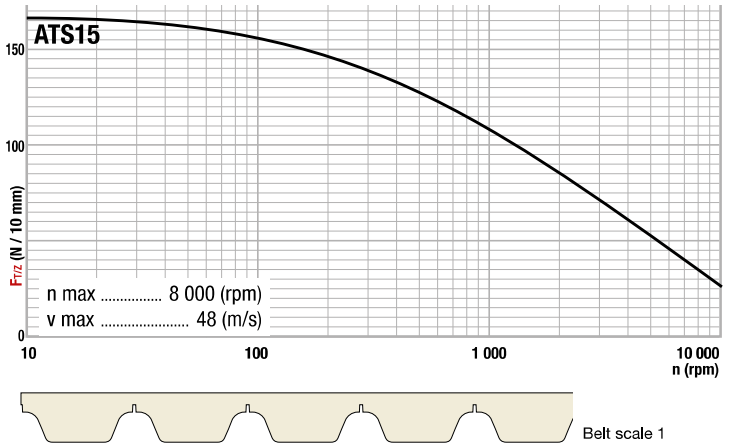


TIMING BELTS



Tangential force transmittable by the teeth



Tangential force transmittable by the tension members

Profile/ pitch	Belt width (mm)	Weight (kg/m)	Linear belts (M)								Welded belts (V)	
			Tension members: standard steel - polyurethane: TPU ST1 ²				Tension members: stainless steel - polyurethane: TPU AU1 ²				Permissible force at the join F _N (N) standard tens. members	Permissible force at the join F _N (N) stainless st. tens. members
			Permissible force F _N (N)	Specific elasticity of tension member Cspe (N)	Stock		Permissible force F _N (N)	Specific elasticity of tension member Cspe (N)	Stock			
					Standard	PAZ ¹			Standard	PAZ ¹		
HIGH-PERFORMANCE APPLICATIONS												
ATS15	25	0.250	6 765	0.172 . 107			5 390	0.172 . 107				
	50	0.500	13 530	0.343 . 107			10 780	0.343 . 107				
	75	0.750	20 295	0.515 . 107			16 170	0.515 . 107				
	100	1.000	27 080	0.686 . 107			21 560	0.686 . 107				
	150	1.500	40 590	1.030 . 107			32 340	1.030 . 107				

ATS15 tolerances

Profile	Width (mm)	Length (mm/m)	Total thickness (mm)	Thickness of tooth (mm)
ATS15	+/- 1	+/- 0.8	- 0.1 / + 0.3	0 / - 0.15

BRECOProtect® belt

Adapted to extreme environments and food applications.
Available in T10, AT10, AT15 profiles and pitches: see [page 12](#)



Standard lengths and widths available

Linear belts (M)

- Every length tooth to tooth possible
- In stock: rolls of 50 or 100 m
- Lengths greater than 100 m on request

Options

- Stainless steel or aramide tension member, see [page 6](#) (on request)
- Polyurethane see [page 5](#) (on request)
- Coatings see [pages 56 to 63](#)

BELT ORDERING EXAMPLE

Designation	Width	Profile / Length	Particular specifications
Open linear BRECO belt	50	ATS15/4500 M	

DELIVERY TIMES

Standard belts	4 to 6 weeks
Special belts	Consult us

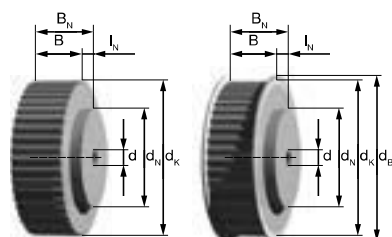
Recommended pre-tension: see [page 4](#)
General information: see [page 4](#)

1. Backing (PAZ): see [page 56](#)
2. Polyurethane: see characteristics [page 5](#)

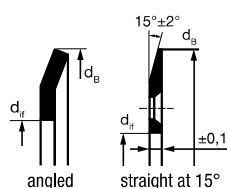
TOOTHED PULLEYS

■ Pulleys acc. to drawing see page 8

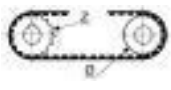
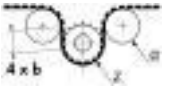
■ Standard pulleys



Belt widths	b	25	32	50	75	100	150
Widths of pulleys without hub	B	32	40	60	85	110	160



Flanges			
Z	Thickness	Shape	Mounting
Z ≤ 62	2	angled	screwed
Z > 62	2	straight at 15°	screwed

Kinematics	Tension member type		ATS15
 Monoflexure	Steel tension members	Z min.	25
		dia. min. (mm)	120
	E tension members	Z min.	
		dia. min. (mm)	
 Contraflexure	Stainless steel tension members*	Z min.	30
		dia. min. (mm)	180
	Steel tension members	Z min.	40
		dia. min. (mm)	250
	E tension members	Z min.	
		dia. min. (mm)	
	Stainless steel tension members*	Z min.	60
		dia. min. (mm)	300

*Special manufacture; minimum quantity.

Comments

- Larger number of teeth possible
- Standard material: 6026 conforming to RoHS, see page 8
- Standard flanges: galvanised steel, see page 9
- d_{max}: maximum bore without keyway for flanged pulley

Options

- The different materials such as steel and stainless steel and the possible surface treatments are shown on page 8
- Special flanges on request
- Special toothforms (zero or reduced backlash), see

We recommended the use of HR (7075) aluminium to avoid deformation of the keyways in high-performance transmissions (ATL).

PULLEY ORDERING EXAMPLES

Designation	Material	Width	Type/no. of teeth	Flanges	Hub	Ø d
Aratron tooth pulley	ALHR	70	ATS15/27-	2	E : 50 x 10	14H7

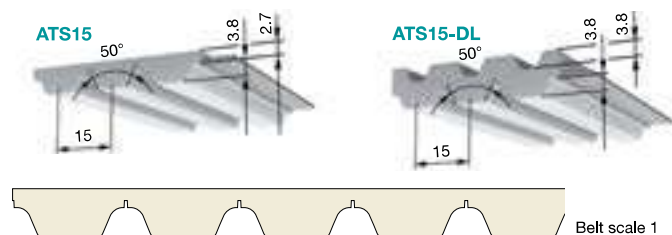
DELIVERY TIMES

Pulleys acc. to drawing	4 weeks
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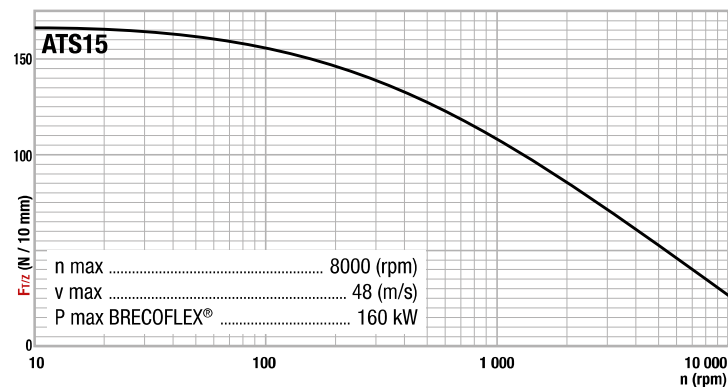
Z	d _K	d _N	Bore d (H7)		d _B	d _F Screwed flanges
			min. stock	max.		
25	116.79	50	12	90	125	92
26	121.56	50	12	93	128	95
27	126.34	50	12	99	134	101
28	131.11	58	12	102	137	104
29	135.88	58	12	109	144	111
30	140.66	60	12	112	147	114
31	145.43	60	12	118	153	120
32	150.21	65	12	121	156	123
33	154.98	65	12	128	163	130
34	159.76	65	16	131	166	133
35	164.53	65	16	137	172	139
36	169.31	70	16	141	176	143
37	174.08	70	16	147	182	149
38	178.86	70	16	150	185	152
39	183.63	70	16	156	191	158
40	188.41	80	16	160	195	162
41	193.18	110	16	166	201	168
42	197.95	110	16	169	204	171
43	202.73	140	16	176	210	178
44	207.50	140	16	179	214	181
45	212.28	140	16	185	220	187
46	217.05	140	16	188	223	190
47	221.83	140	16	195	230	197
48	226.60	140	16	198	234	200
49	231.38	140	16	204	239	206
50	236.15	140	16	207	242	209
51	240.93	140	16	214	249	216
52	245.70	140	16	217	252	219
53	250.48	160	20	223	258	225
54	255.25	160	20	226	262	228
55	260.03	160	20	233	268	235
56	264.80	160	20	236	271	238
57	269.57	160	20	242	277	244
58	274.35	160	20	245	281	247
59	279.12	160	20	252	287	254
60	283.90	160	20	255	290	257
61	288.67	160	20	261	296	263
62	293.45	160	20	265	300	267
63	298.22	160	24	271	306	273
64	303.00	160	24	274	310	276
65	307.77	160	24	281	315	283
66	312.55	160	24	284	319	286
67	317.32	160	24	290	325	292
68	322.10	160	24	293	329	295
69	326.87	160	24	300	335	302
70	331.64	160	24	303	338	305
71	336.42	160	24	309	344	311
72	341.19	160	24	314	348	314
73	345.97	160	24	315	354	321
74	350.74	160	24	319	357	324
75	355.52	160	24	325	363	330
76	360.29	160	24	335	367	334
77	365.07	160	24	335	372	336
78	369.84	160	24	340	377	341
79	374.62	160	24	345	382	346
80	379.39	160	24	349	386	350
81	384.17	160	24	354	391	355
82	388.94	160	24	359	396	360
83	393.71	160	24	364	401	365
84	398.49	160	24	369	405	369
85	403.26	160	24	373	410	374
86	408.04	160	24	378	415	379
87	412.81	160	24	383	420	384
88	417.59	160	24	388	425	389
89	422.36	160	24	392	429	393
90	427.14	160	24	397	434	398
91	431.91	160	24	402	440	403
92	436.69	160	24	407	444	408
93	441.46	160	24	412	448	412
94	446.24	160	24	416	453	417
95	451.01	160	24	421	459	422
96	455.79	160	24	426	463	427
97	460.56	160	24	431	468	432
98	465.33	160	24	435	472	436
99	470.11	160	24	440	478	441

Z: number of teeth. D_F: inside diameter of flanges.

TIMING BELTS



Tangential force transmittable by the teeth



Tangential force transmittable by the tension members

Belt widths	b (mm)	25	32	50	75	100
BRECOFLEX® belts						
F_N standard tension members	(N)	6150	7995	12915	19680	26445
F_N stainless steel tension members	(N)	4900	6370	10290	15680	21070
Weight BRECOFLEX® ATS15	(kg/m)	0,219	0,280	0,438	0,656	0,875
Weight BRECOFLEX® ATS15 DL	(kg/m)	0,294	0,377	0,589	0,883	1,178

Manufacturing capacities

BRECOFLEX® AT15S - AT15S PAZ	
Lengths from 1 500 to 22 000 mm	All intermediate lengths can be produced¹
Standard belts	
Versions DL and DL/PAZ⁴	
Polyurethanes²	TPU ST1
Winding	Lengths from 1 500 to 22 000 mm: bifilar
Tension members³	Steel
1. Minimum order	Consult us
2. Other polyurethanes (see table "Characteristics of materials" page 5)	
3. Other tension members (aramide, high-flexibility tension members, stainless steel)	
	4. See "Coatings" page 56

Standard lengths profile / mm	No. of teeth	BRECOFLEX®	
		SD	DL
ATS15 / 1500	100	○	○
ATS15 / 1590	106	○	○
ATS15 / 1710	114	○	○
ATS15 / 1800	120	○	○
ATS15 / 1905	127	○	○
ATS15 / 1995	133	○	○
ATS15 / 2250	150	○	○
ATS15 / 2505	167	○	○
ATS15 / 2790	186	○	○
ATS15 / 3000	200	○	○
ATS15 / 3285	219	○	○
ATS15 / 3495	233	○	○
ATS15 / 3750	250	○	○
ATS15 / 4005	267	○	○
ATS15 / 4245	283	○	○
ATS15 / 4500	300	○	○
ATS15 / 4740	316	○	○
ATS15 / 4995	333	○	○
ATS15 / 5295	353	○	○
ATS15 / 5595	373	○	○
ATS15 / 5760	384	○	○
ATS15 / 6000	400	○	○
ATS15 / 6300	420	○	○
ATS15 / 6705	447	○	○
ATS15 / 7095	473	○	○
ATS15 / 7500	500	○	○

SD: single sided. DL: double sided.

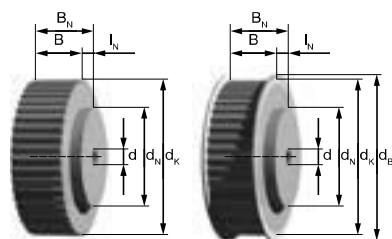
DELIVERY TIMES		
Belts in stock	●	3 days acc. to availability
Standard belts	○	4 weeks
Special belts		Consult us

Recommended pre-tension: see [page 124](#)General tolerances: see [page 81](#)General information: see [page 4](#)

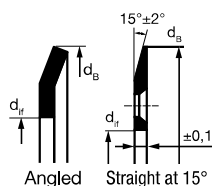
BELT ORDERING EXAMPLES				
Designation	Width	Profile / length	Type	Particular specification
BRECOFLEX timing belt	50	ATS15/1800	BFX	
BRECOFLEX timing belt	75	ATS15/ 5600	BFX	PAZ

TOOTHED PULLEYS

Standard pulleys



Belt widths	b	25	32	50	75	100
Widths of pulleys without hub	B	32	40	60	85	110



Flanges			
Z	Thickness	Shape	Mounting
Z ≤ 62	2	Angled	Screwed
Z > 62	2	Straight at 15°	Screwed

Kinematics	T type		BRECOFLEX®	
			SD	DL
 Monoflexure	Steel tension members	Z min.	25	40
		dia. min. (mm)	120	250
	E tension members	Z min.		
		dia. min. (mm)		
	Stainless steel tension members*	Z min.	30	60
		dia. min. (mm)	180	300
 Contraflexure	Steel tension members	Z min.	40	40
		dia. min. (mm)	250	250
	E tension members	Z min.		
		dia. min. (mm)		
	Stainless steel tension members*	Z min.	60	60
		dia. min. (mm)	300	300

*Special manufacture: minimum quantity

Comments

- Larger number of teeth possible
- Standard material 6026 conforming to RoHS, see [page 8](#)
- Standard flanges: galvanised steel, see [page 9](#)
- d_{max} : maximum bore without keyway for flanged pulley.

Options

- The different materials such as steel and stainless steel and the surface treatment are shown on [page 8](#)
- Special flanges on request
- Special toothforms (zero or reduced backlash), see [page 8](#)

We recommended the use of HR (7075) aluminium to avoid deformation of the keyways.

PULLEY ORDERING EXAMPLES

Designation	Material	Width	Type/no. of teeth	Flanges	Hub	Dia. d
Aratron tooth pulley	AL	70	ATS15/27 -	2	E : 50 x 10	14H7

DELIVERY TIMES

Pulleys acc. to drawing	Consult us
-------------------------	------------

Z	d _k	d _n	Bore d (H7)		d _b	d _f Screwed flanges
			min. stock	max.		
25	116.79	50	12	90	125	92
26	121.56	50	12	93	128	95
27	126.34	50	12	99	134	101
28	131.11	58	12	102	137	104
29	135.88	58	12	109	144	111
30	140.66	60	12	112	147	114
31	145.43	60	12	118	153	120
32	150.21	65	12	121	156	123
33	154.98	65	12	128	163	130
34	159.76	65	16	131	166	133
35	164.53	65	16	137	172	139
36	169.31	70	16	141	176	143
37	174.08	70	16	147	182	149
38	178.86	70	16	150	185	152
39	183.63	70	16	156	191	158
40	188.41	80	16	160	195	162
41	193.18	110	16	166	201	168
42	197.95	110	16	169	204	171
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45	212.28	140	16	185	220	187
46	217.05	140	16	188	223	190
47	221.83	140	16	195	230	197
48	226.60	140	16	198	234	200
49	231.38	140	16	204	239	206
50	236.15	140	16	207	242	209
51	240.93	140	16	214	249	216
52	245.70	140	16	217	252	219
53	250.48	160	20	223	258	225
54	255.25	160	20	226	262	228
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58	274.35	160	20	245	281	247
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64	303.00	160	24	274	310	276
65	307.77	160	24	281	315	283
66	312.55	160	24	284	319	286
67	317.32	160	24	290	325	292
68	322.10	160	24	293	329	295
69	326.87	160	24	300	335	302
70	331.64	160	24	303	338	305
71	336.42	160	24	309	344	311
72	341.19	160	24	314	348	314
73	345.97	160	24	315	354	321
74	350.74	160	24	319	357	324
75	355.52	160	24	325	363	330
76	360.29	160	24	335	367	334
77	365.07	160	24	335	372	336
78	369.84	160	24	340	377	341
79	374.62	160	24	345	382	346
80	379.39	160	24	349	386	350
81	384.17	160	24	354	391	355
82	388.94	160	24	359	396	360
83	393.71	160	24	364	401	365
84	398.49	160	24	369	405	369
85	403.26	160	24	373	410	374
86	408.04	160	24	378	415	379
87	412.81	160	24	383	420	384
88	417.59	160	24	388	425	389
89	422.36	160	24	392	429	393
90	427.14	160	24	397	434	398
91	431.91	160	24	402	440	403
92	436.69	160	24	407	444	408
93	441.46	160	24	412	448	412
94	446.24	160	24	416	453	417
95	451.01	160	24	421	459	422
96	455.79	160	24	426	463	427
97	460.56	160	24	431	468	432
98	465.33	160	24	435	472	436
99	470.11	160	24	440	478	441

Z: number of teeth.