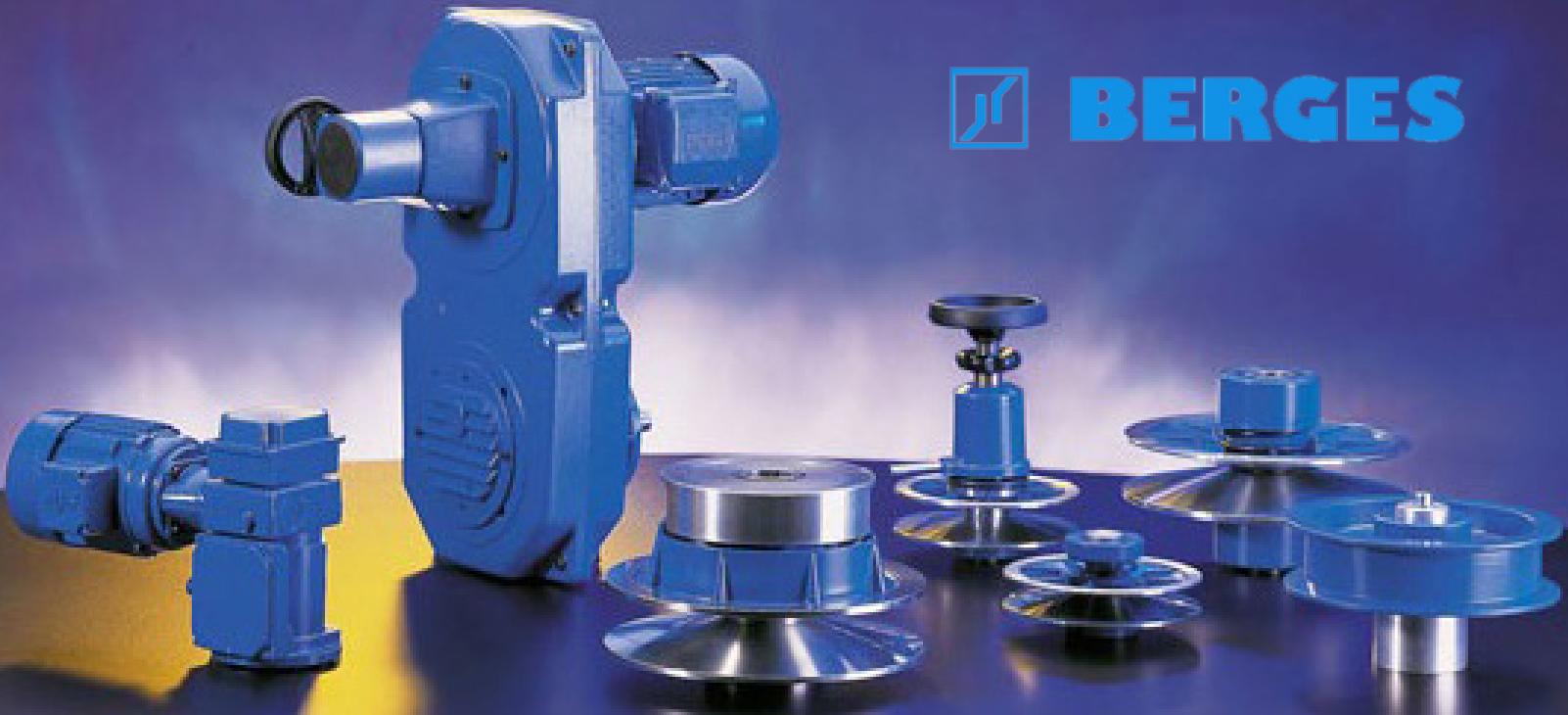


The BERGES logo consists of a square icon with a stylized 'B' shape inside, followed by the word 'BERGES' in a bold, blue, sans-serif font.

Made in Italy...
Loved in America

Variable Pulley System

Mechanical Speed Variators

www.tvtamerica.com





Motor flange

TVT America



TVT America

Made in Italy... Loved in America

TVT America was formed to support and develop the North American market for the Italian gear manufactures Tramec S.r.l., Varmec S.r.l., and Techno-Line-Service (aka TLS Riduttori) S.r.l. In 2004, TVT America, Incorporated as an Oklahoma Limited Liability Corporation. In a highly competitive market, TVT America is organized to offer American customers factory direct service & pricing from the middle of North America.

From this very humble and near elemental beginning TVT grew in strength and reputation one solution at a time, customer by customer, into a global organization with over 2000 authorized distribution points in North America. While our competitors may choose growth by financial acquisition, stagnating design while outsourcing manufacture, we chose to grow by partnering, retaining and strengthening each manufactures design & manufacture expertise while serving a global market. In this catalog you will find one such example in the products designed & produced by Berges Antriebstechnik GmbH & Co. KG of Marienheide, Germany

YOU WILL LOVE THE SAFETY DELIVERED BY OUR ATEX MOTORS, GEAR REDUCERS, AND VARIABLE SPEED DRIVES, THE SAFETY ASSURED BY OUR TORQUE LIMITING CLUTCHES, AND THE SAFETY OF A UL/CSA/CE LISTED MOTOR THAT EXCEEDS COMPETITORS.

Motor flange

TVT America Mechanical Speed Variators



Mechanical Speed Variator

Variable Pulley Drives

Looking to control a lot of horse power and need variable speed? Mechanical Speed Variators (*Variable Pulley Drives*) from TVT America is your solution. The Mechanical Speed Variator offers a completely straight forward, simple, and reliable design in a trusted method for speed control in heavy duty industrial pumping, conveying, mixing, and many other variable drive applications where reliability and simplicity rule.

Mechanical Speed Variators use Pulleys & Belts manufactured by Berges GmbH, and thus is directly interchangeable with the German Berges Mechanical Variable Speed Drives from 0.25 to 160 KW, and can

replace many variable pulley drives from other manufactures who use the Berges Pulley System; such as Nord Unicast(R), SEW-Eurodrive's Varigear(R). Millions of the RGAE type of design are working around the world in some of the harshest conditions and nearly every kind of machine or equipment requiring reliable variable speed control.

We could develop a more complex design, but the Mechanical Speed Variator customer needs simplicity, reliability, smooth operation, low maintenance, and a global organization to back it up. Mechanical Speed Variator is power you can understand.


MECHANICAL VARIABLE SPEED

Technical Data

The most important technical data is specified on the name (rating) plate

 BERGES Antriebstechnik	
51709 Marienheide - Tel. 02264/17-0	
Typ	<input type="text"/>
KB-Nr	<input type="text"/>
Baujahr	<input type="text"/>

- This data and the contractual agreements for the drives stipulate the limits to use as intended.
- Please refer to the product catalogs to further technical data.
- On complete gears (RGAE with reduction gear and motor), three rating plates are normally attached. One rating plate is attached to the motor, one is attached to the gear and one attached to the RGAE.

 BERGES Antriebstechnik		
51790 Marienheide		
Typ	<input type="text" value="1"/>	
Date	<input type="text" value="2"/>	
N0.	<input type="text" value="3"/>	
i	<input type="text" value="4"/>	
n1/n2	<input type="text" value="5"/>	1/min
M2max	<input type="text" value="6"/>	Nm

Lubricant - see maintenance instructions

1. Type (type of construction, size)
2. Date of manufacture
3. Gear number
4. Transmission ratio
5. Output Speed in rpm
6. Max torque



TVT Americas Mechanical speed variators are constructed on the basis of a modular system They consist of:

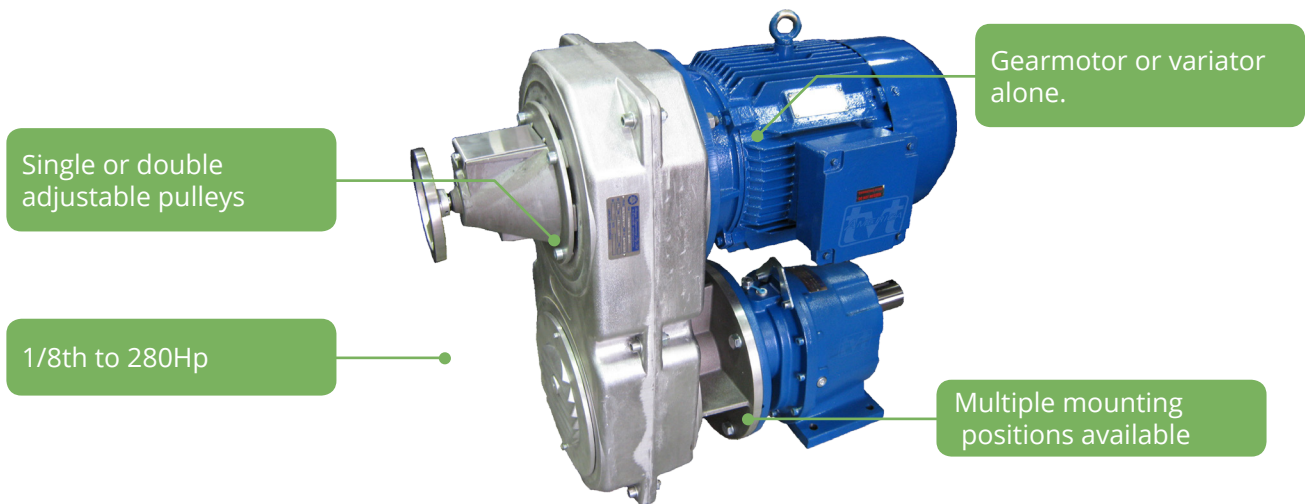
- BERGES assembly units VG
- Output flanges or output bases GFL or GTF
- Gear boxes (helical -, worm -, bevel -and helical shaft mount. Gearboxes)
- Three-phase motors to IEC standard
- Speed controls SS, WS, HS, EFV or EFH
- Speed indicators DVM 120 01 or FFA 96



Caution ! Variable -speed geared motors may be operated only at the frequency specified on the rating plate.

GENERAL DESCRIPTION

Replaces Nord and SEW



TVT Americas mechanical variable speed units are designed for continuous duty under difficult operating conditions. These units have the following standard construction features:

- Supplied as a variable-speed gear attachment unit, of base or flange design, or with reduction gear and are suitable for all conventional installation positions
- Consists of aluminum and have a symmetrical design. They are sturdy, vibration-damping and designed for continuous operation.
- All shafts are mounted in rolling-contact bearings and are packed with rolling-contact bearing grease for lifetime lubrication.

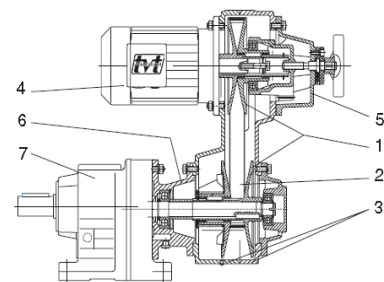
Component Identification

Variable speed geared motors with reduction gearing are comprised of the following component parts:

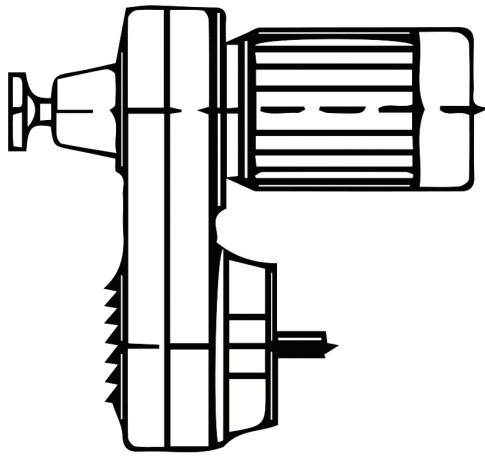
1. Adjustable pulleys
2. Wide V-belt
3. Split belt case housing
4. Drive motor
5. Adjusting and indicating devices
6. Mounting adapter and bearing cover
7. Gear reduction unit

AVAILABLE FEATURES

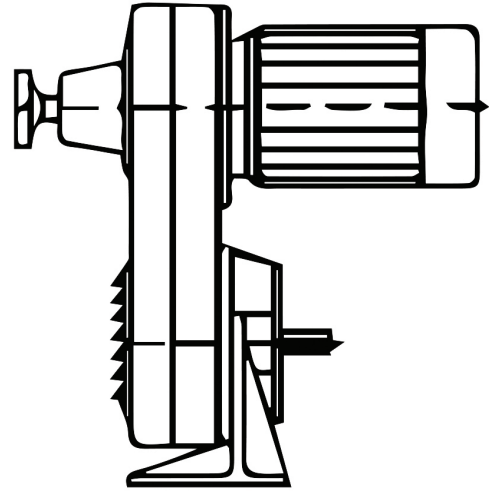
- Nitrided pulleys for corrosion resistance.
- Severe Duty option for motor protection in outdoor service or humid environments.
- Totally enclosed belt case on sizes 01-41 for dusty environments.
- Brake on the motor or on the driven pulley shaft.
- Speed adjustment through front hand wheel, right angle hand wheel, or electro mechanical remote control.
- Digital Speed Readout
- Hand wheel with speed indicator
- Input shaft in lieu of a motor
- Adapters for C-face motors



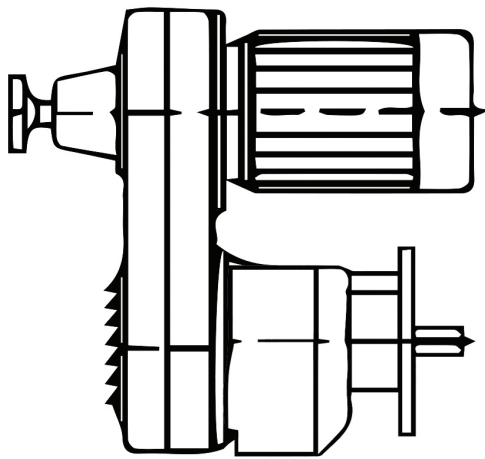
BASIC COMPONENTS



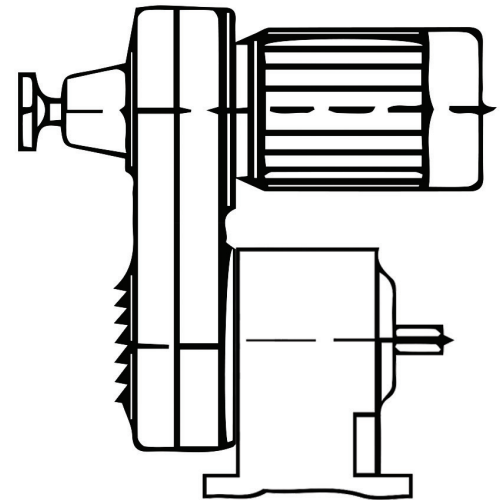
Flange Type



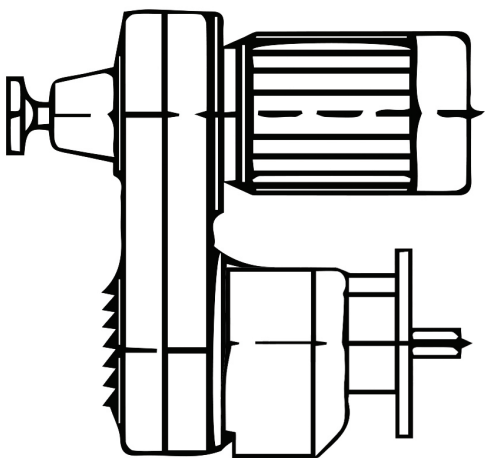
Pedestal type



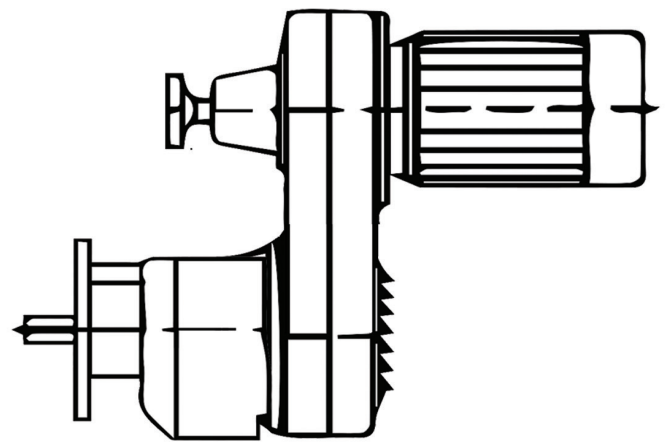
Flanged gear unit



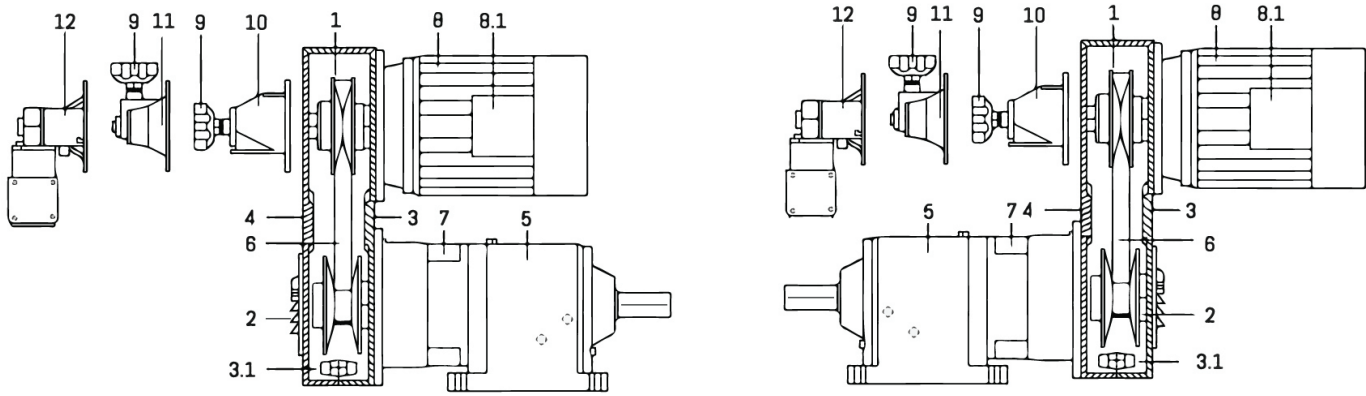
Pedestal gear unit



U Orientation



Z Orientation



MODE OF OPERATION

- The three-phase motor (Item 8) drives the mechanically adjustable regulation pulley R (Item 1) This drives the spring-loaded spring pulley F (Item 2) which is arranged on the drive shaft of the gear flange GFL (Item 7 resp. Item 7.1, Figure 5, Page 13) or the drive shaft of the reduction gear (Item 5), via the wide V-belt (Item 6). Depending on gearbox type, the gearbox is attached either directly to one of the two casing halves (Item 3 | Item 4) or using the gear flange GFL resp. Gear base GTF. (Item 7.1 wsp. 7.2)
- The rotational speed is adjusted by the adjustment device (Items 10, 11, 12) by shifting the moving running surface of the mechanically adjustable regulating pulley R in axial direction by turning the hand wheel resp. Operating the variable-speed motor. A rotational speed indication (option) is provided by the position indicator in the scale hand wheel or electrically by means of the pulse generator and indicator.

INSTALLATION

The consignment must be examined immediately on arrival for completeness and transport damage. We are able to replace damaged equipment free of charge only if an advice of damage is drawn up in the presence of the haulage contractor.

Caution!

Use only slinging equipment with a adequate load-carrying capacity to transport the drive. Ensure that the equipment is correctly secured. Avoid shocks and jolts.

Important!

Equipment of Z-type of construction is not stable! Ensure that such equipment is appropriately supported. Drives which are not be installed immediately must be covered and stored in dry rooms not subject to major temperature differences and in the position of normal use.

Important!

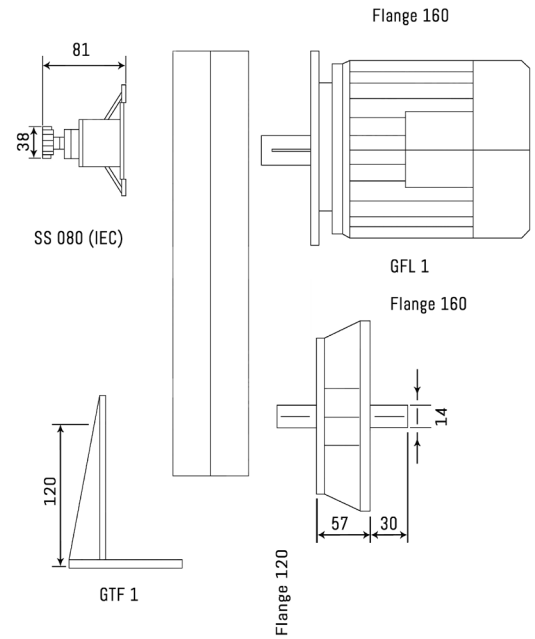
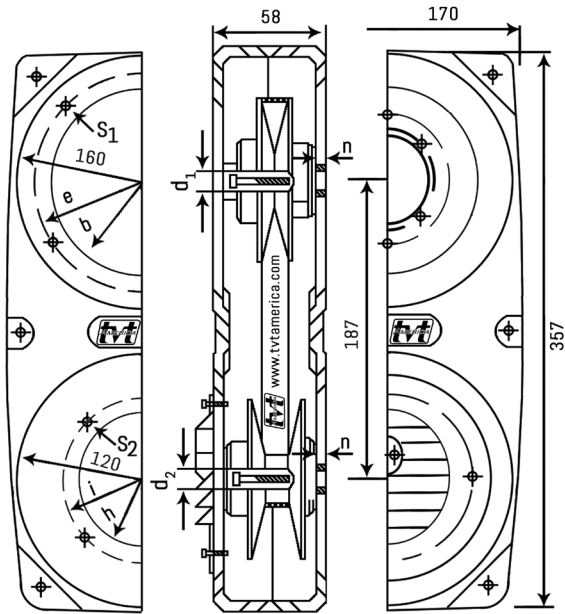
Do not store drives in the open air. (Should it be necessary to store drives in the open air, carefully cover the drive and protect it against moisture and soiling).

- Exposed flange surfaces and shaft ends are preserved as standard, and we provide 6 months warranty on this preservation. The warranty period commences on the date of delivery.
- If the equipment is to be stored for longer than three months, remove the wide V-belt.
- If the equipment is to be stored for longer than six months, inspect the preservation and renew it if necessary.

ASSEMBLY UNITS

RGAE 1

$P_{1max} = 0.37 \text{ kW}$



ASSEMBLY UNIT RGAE 1 $P_{1MAX} = 0.73 \text{ kW}$

RGAE 1

Specifications

Motor size type	Power kW	Nominal speed	RGAE type	Output power max/min kW	Output speed	Belt	Speed range	Weight (lbs.)
71 B5	0.37	1370	RGAE 1-90	0.33/0.19	3210/585	17x6x578	1:5.5	7

RGAE 1

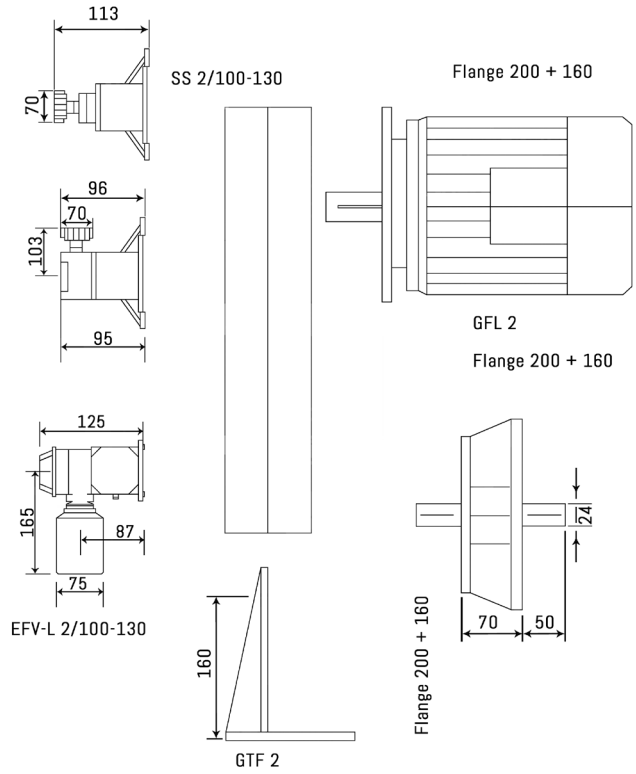
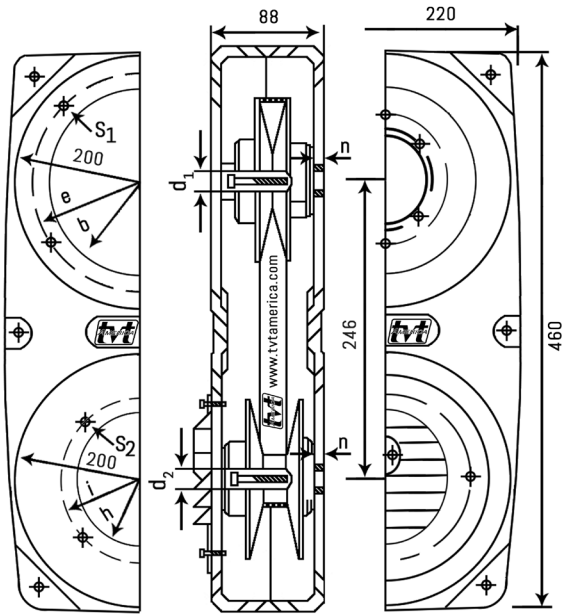
Dimensions in mm

RGAE type	D_1	e	b	S_1	d_{2max}	i	h	S_2	n
RGAE 1-080	11 14	130	113	9	11 14	100	81	6.5	4

ASSEMBLY UNITS

RGAE 2

$P_{1max} = 1.5 \text{ kW}$



RGAE 2

Specifications

Motor size type	Power kW	Nominal speed	RGAE type	Output power max/min kW	Output speed max/ min	Belt	Speed range	Weight (lbs.)
90 B5	1.5	1390	RGAE 2-100	1.3/06	3260/595	22x7x758	1:5.5	14

RGAE 2

Dimensions in mm

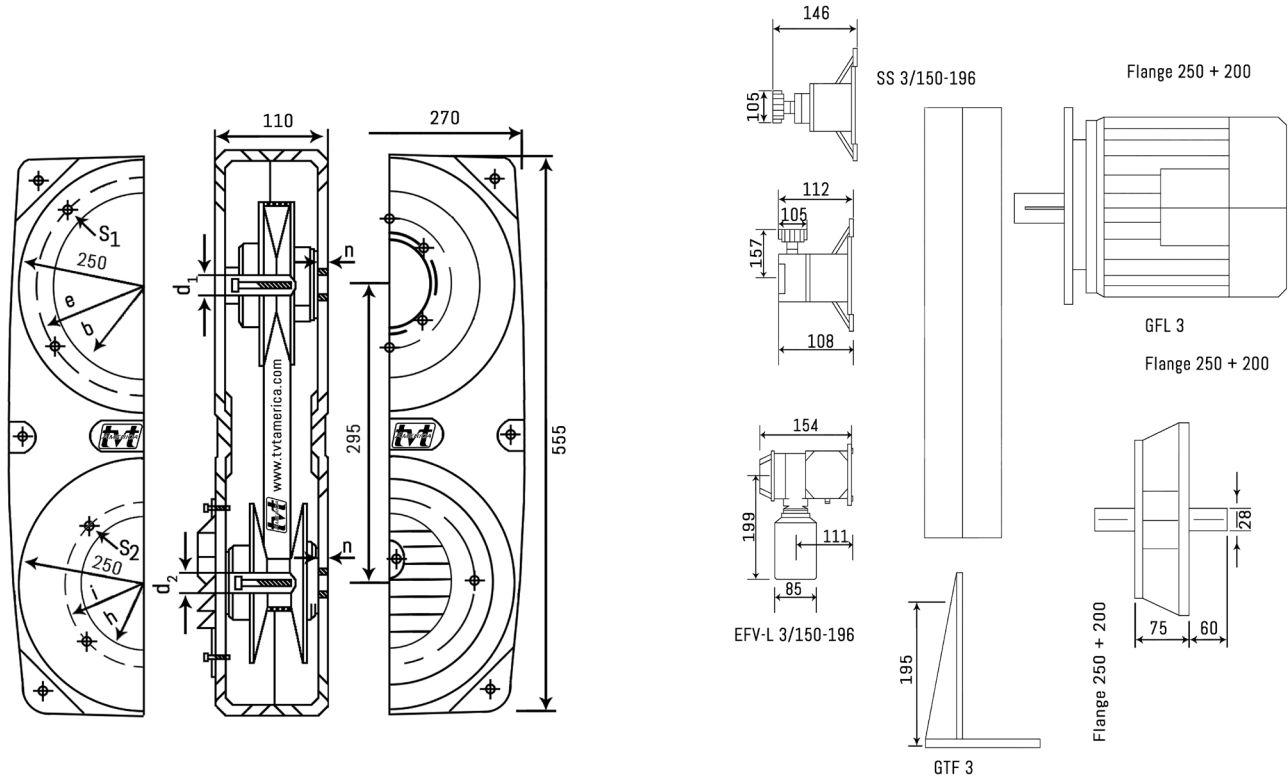
RGAE type	D_1	e	b	s_1	d_{2max}	i	h	s_2	n
RGAE 2-100	14	165	133	9	14	165	133	11	8
RGAE 2-130	19				113		9		
RGAE 2-130	24								

ASSEMBLY UNIT RGAE 2 $P_{1max} = 1.5 \text{ kW}$

ASSEMBLY UNITS

RGAE 3

$P_{1max} = 4.0 \text{ kW}$



RGAE 3

Specifications

Motor size type	Power kW	Nominal speed	RGAE type	Output power max/min kW	Output speed max./min	Belt	Speed range	Weight (lbs.)
90 B5	1.5	1410	RGAE 3-190/1.5	1.3/0.75	4560/435	28x8x988	1:10.5	28
100B5	3.0	1430	RGAE 3-150	2.7/0.9	3595/555	28x8x938	1:6.5	25
100B5	3.0	1430	RGAE 3-190/3.0	2.7/0.85	4230/470	28x8x996	1:9.0	28
112 B5	4.0	1140	RGAE 3-196	3.6/1.2	4040/505	33x10x1020	1:8.0	32

RGAE 3

Dimensions in mm

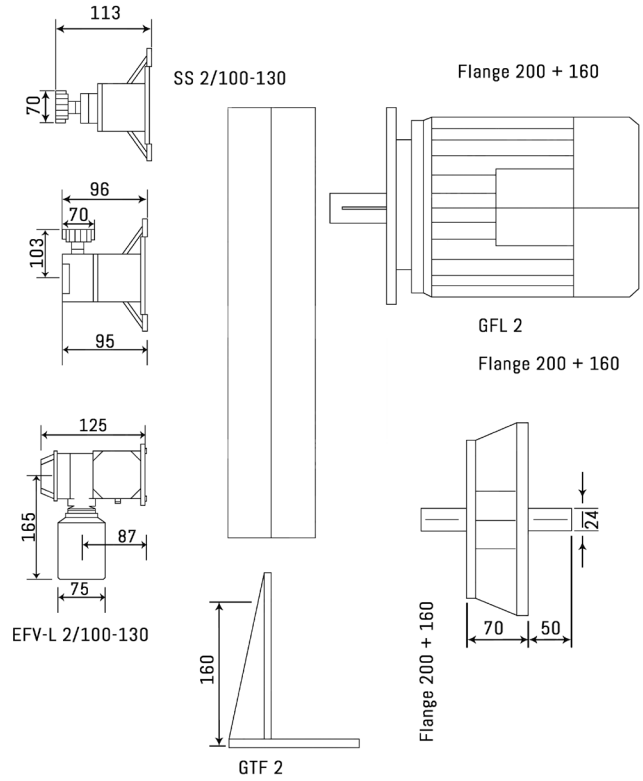
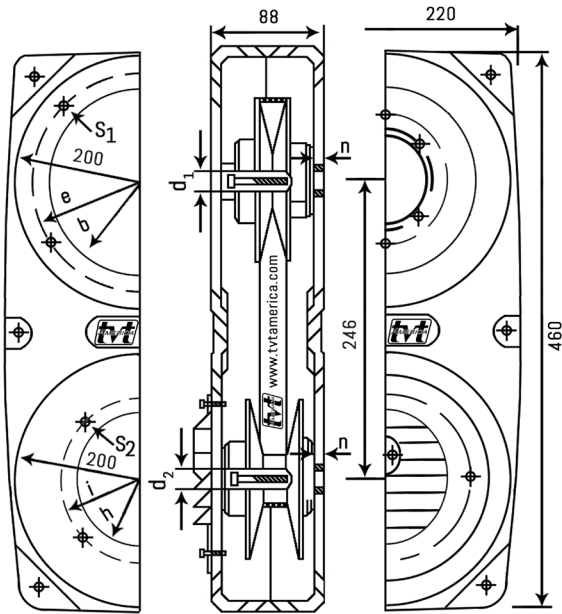
RGAE type	D_1	e	b	S_1	d_{2max}	i	h	S_2	n
RGAE 3-190/1.5	19 24	165	133	11	19 24 28	215 165	183 133	13 11	10
RGAE 3-150 RGAE3-190/3.0	19 24 28	215	183	13	19 24 28	215 165	183 133	13 11	10
RGAE 3-196	19 24 28	215	183	13	19 24 28	215 165	183 133	13 11	-

ASSEMBLY UNIT RGAE 3 $P_{1MAX} = 4.0kW$

ASSEMBLY UNITS

RGAE 4

$P_{1max} = 7.5 \text{ kW}$



RGAE 4

Specifications

Motor size type	Power kW	Nominal speed	RGAE type	Output power max/min kW	Output speed max/ min	Belt	Speed range	Weight (lbs.)
112 B5	4.0	1430	RGAE 4-235	3.6/1.6	4610/439	37x10x1180	1:10.5	49
132 B5	7.5	1450	RGAE 4-4210	6.7/1.85	3970/530	37x10x1167	1:7.5	215

RGAE 4

Dimensions in mm

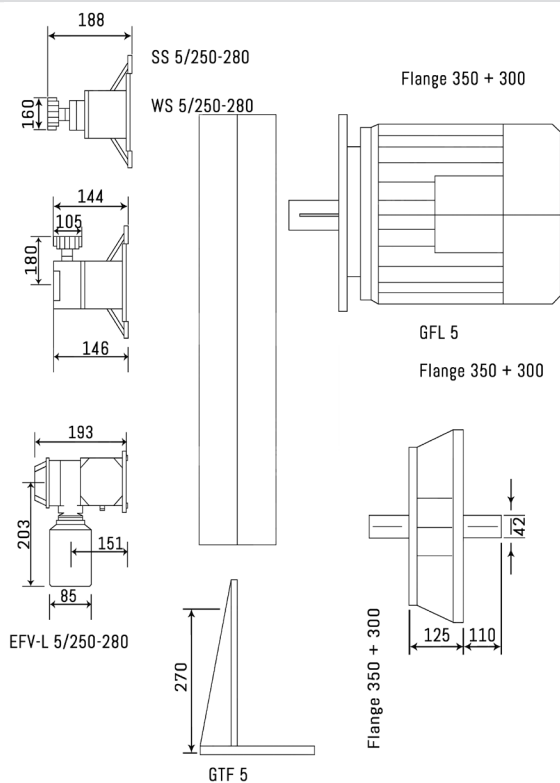
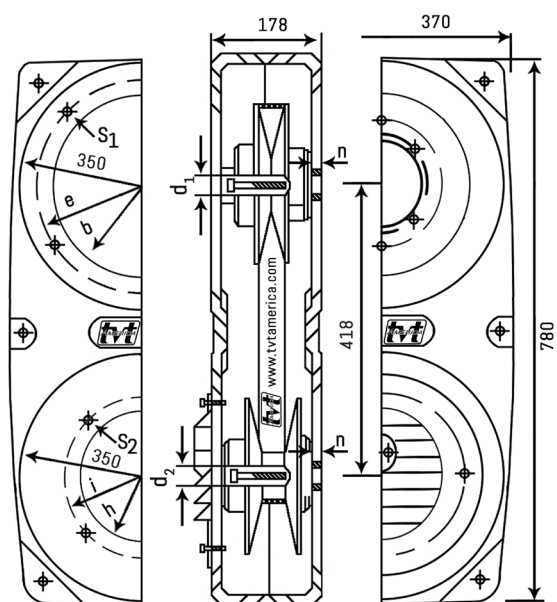
RGAE type	D_1	e	b	s_1	d_{2max}	i	h	s_2	n
RGAE 4-235	24 28	215	183	13	24 28	265 215	233 183	13 11	9
RGAE 4-210	24 28 38	265	233	13	24 28 38	265 215	233 183	13 11	9

ASSEMBLY UNIT RGAE 4 P_{1max} 7.5kW

ASSEMBLY UNITS

RGAE 5

$P_{1max} = 15.0 \text{ kW}$



ASSEMBLY UNIT RGAE 5 $P_{1MAX} = 15kW$

RGAE 5

Specifications

Motor size type	Power kW	Nominal speed	RGAE type	Output power max/min kW	Output speed max./min	Belt	Speed range	Weight (lbs.)
160 B5	11	1450	RGAE 5-250	9.9/22.7	3970/530	47x12x1383	1:7.5	85
160 B5	15	1455	RGAE 5-280	13.5/4.1	4240/500	55x15x1475	1:8.5	101

RGAE 5

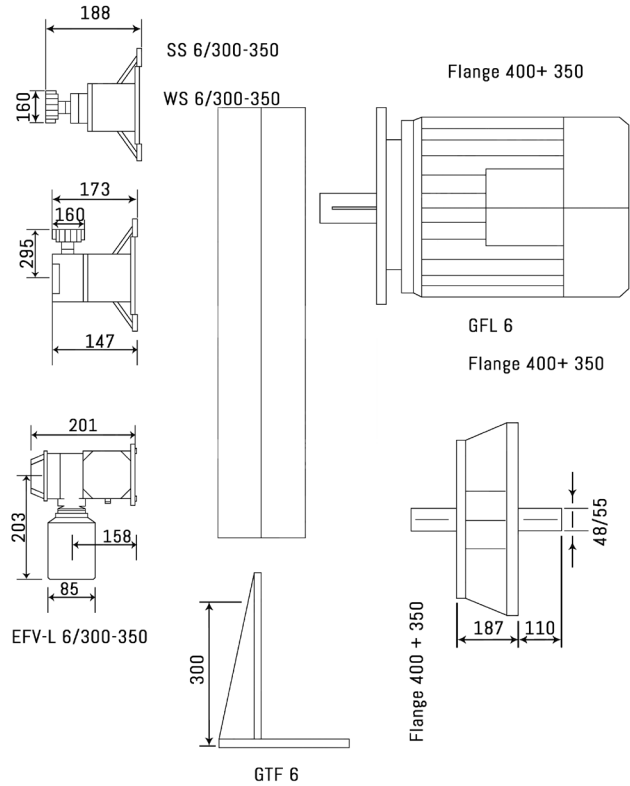
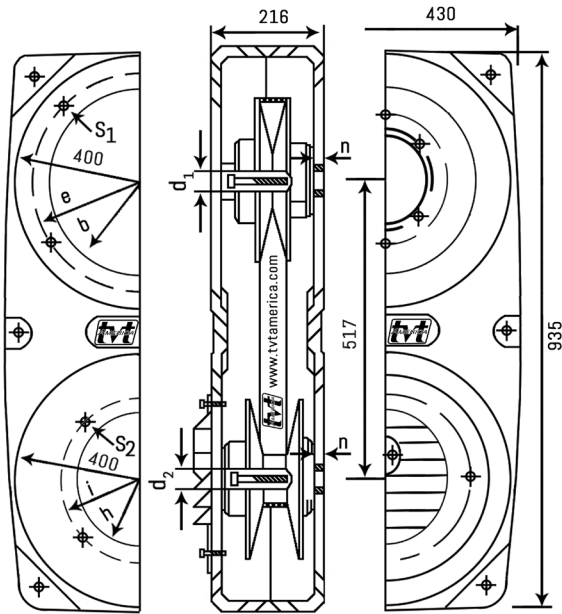
Dimensions in mm

RGAE type	D_1	e	b	s_1	d_{2max}	i	h	s_2	n
RGAE 5-250	28	300	253	17	28	300	253	17	16.5
	38				38				
	42				265				
RGAE 5-280	28	300	253	17	28	300	253	17	8
	38				38				
	42				265				

ASSEMBLY UNITS

RGAE 6

$$P_{1\max} = 1.5 \text{ kW}$$



RGAE 6

Specifications

Motor size type	Power kW	Nominal speed	RGAE type	Output power max/min kW	Output speed max/min	Belt	Speed range	Weight (lbs.)
180 B5	18.5	1460	RGAE 6-300	16.6/6.1	3920/545	51x16x1695	1:7.2	157
180 B5	22	1460	RGAE 6-300	19.8/6.1	3920/545	52x16x1695	1:7.2	157
200 B5	30	1465	RGAE 6-350	27/10	4000/540	72x22x1778	1:7.4	169

RGAE 6

Dimensions in mm

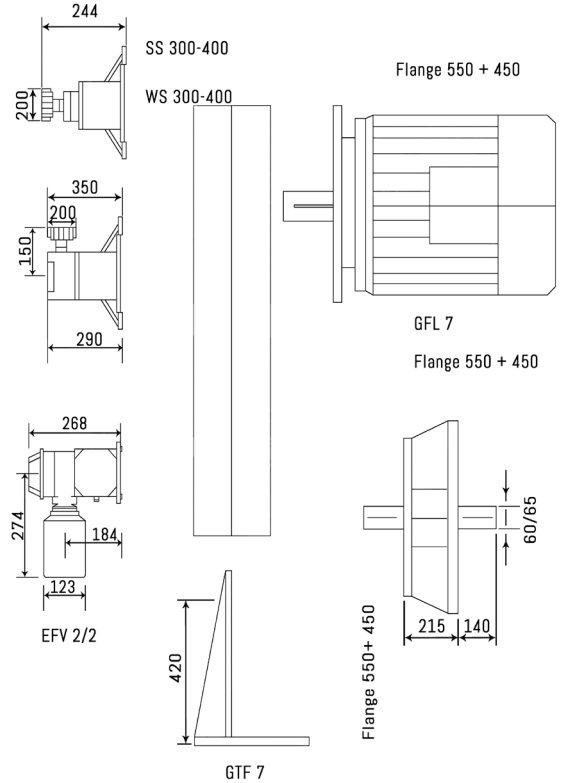
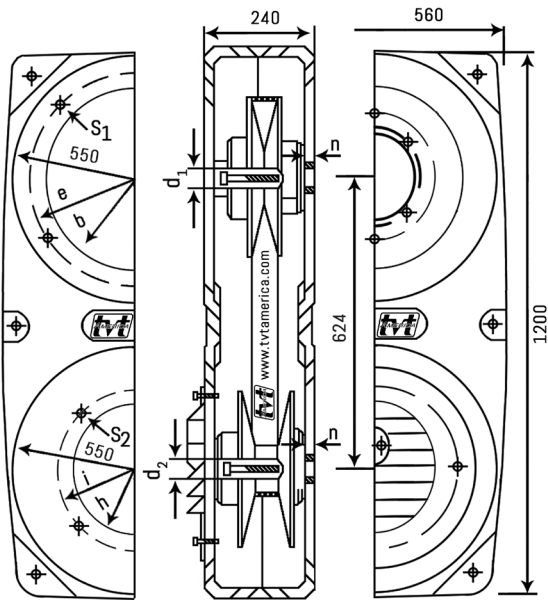
RGAE type	D ₁	e	b	s ₁	d _{2 max}	i	h	s ₂	n
RGAE 6-300	42	300	253	17	42	350	303	17	15.5
	48				253				
RGAE 6-350	42	350	303	17	42	350	303	17	11
	48				253				
	55								

ASSEMBLY UNIT RGAE 6 P_{1 MAX} = 30 kW

ASSEMBLY UNITS

RGAE 7

$P_{1max} = 55.0 \text{ kW}$



ASSEMBLY UNIT RGAE 7 $P_{1MAX} = 55kW$

RGAE 7

Specifications

Motor size type	Power kW	Nominal speed	RGAE type	Output power max/min kW	Output speed max./min	Belt	Speed range	Weight (lbs.)
225 B5	37	1475	RGAE 7-375	33.3/16.0	2760/520	83x23x2066	1:5.3	202
225 B5	45	1475	RGAE 7-375	40.5/16.0	2760/520	83x23x2066	1:5.3	202
250 B5	55	1475	RGAE 7-400	49.5/16.8	2575/515	93x23x2145	1:5.0	225

RGAE 7

Dimensions in mm

RGAE type	D_1	e	b	S_1	$d_{2 \max}$	i	h	s_2	n
RGAE 7-375	55 60	400	353	17	55 60	500 400	453 353	17 17	10
RGAE 7-400	55 60 65	500	453	17	55 60 65	500 400	453 353	17 17	10

ASSEMBLY UNITS

RGAE 8 & 9

$P_{1max} = 160 \text{ kW}$

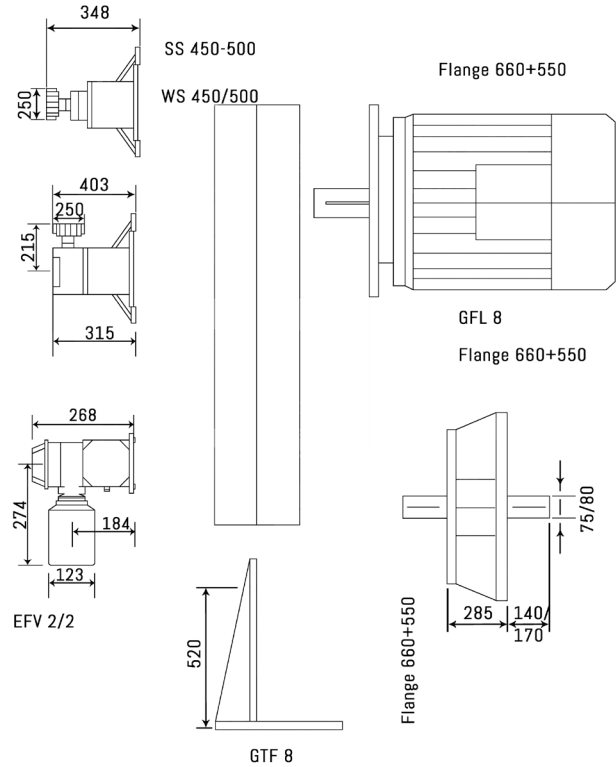
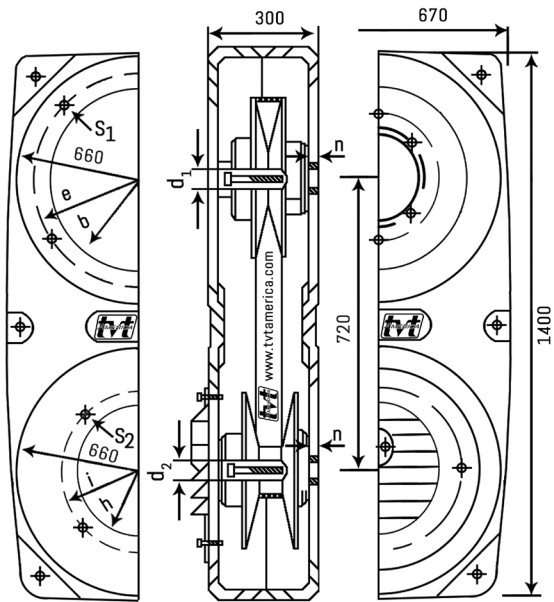


Diagram only valid for RGAE8

RGAE 8 & 9

Specifications

Motor size type	Power kW	Nominal speed	RGAE type	Output power max/min kW	Output speed max/ min	Belt	Speed range	Weight (lbs.)
280 B5	75	1480	RGAE 8-450	67.5/21.2	2770/630	83x26x2488	1:4.4	517
280 B5	90	1480	RGAE 8-500	81.0/36.5	1992/498	83x26x2675	1:4.0	562
315 B5	110	1480	RGAE 8-500	99/36.5	1992/498	83x26x2675	1:4.0	562
315 B5	132	1480	RGAE 9-600	119/75	1965/655	*	1:3.0	*
315 B5	160	1480	RGAE 9-600	145/75	1965/655	*	1:3.0	*

RGAE 8

Dimensions in mm

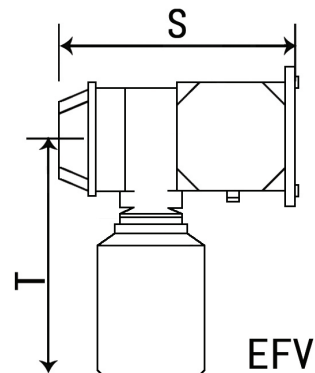
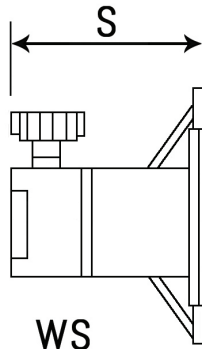
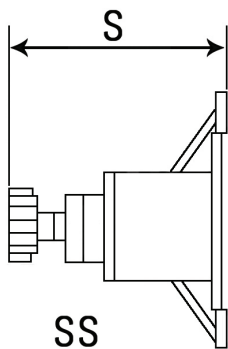
RGAE type	D_1	e	b	s_1	d_{2max}	i	h	s_2	n
RGAE 8-450	65 75	500	453	17	80	600 500	553 453	21 17	10
RGAE 8-500/90	65 75	500	453	17	80	600 500	553 453	21 17	10
RGAE 8-500/110	75 80	600	553	21	80	600 500	553 453	21 17	10

* Please enquire for 9-600/132-160

ASSEMBLY UNIT RGAE 8 & 9 $P_{1max} = 160 \text{ kW}$

SPEED CONTROLS SS, WS & EFV

The control devices SS and ES are also available with a scale hand-wheel, if required. The compact electric remote control EFV is additionally available with the slop clutch and or potentiometer for analog indication. In contrast to the otherwise normal wheel chain arrangement, there are no bending moments thanks to the linear stroke adjustment. Speed indicators and tachometers are available on request. EFV can also be used in conjunction with double pulley drives.



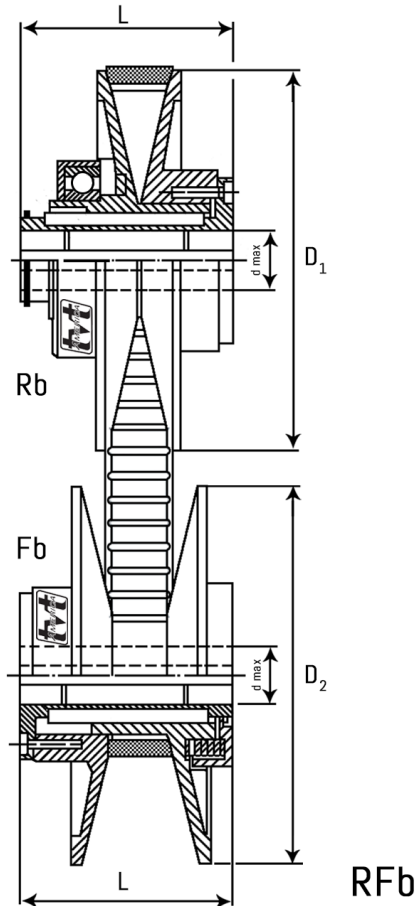
SPEED ADJUSTMENT CONTROLS FOR RGAE

SS		
Speed adjustment controls		
RGAE	Control	S
RGAE 2-100	SS 2/100-130	113
RGAE 2-130	SS 2/100-130	113
RGAE 3-150	SS 3/150-196	146
RGAE 3-190	SS 3/150-196	146
RGAE 3-196	SS 3/150-196	146
RGAE 4-210	SS 4/210-235	148
RGAE 4-235	SS 4/210-235	148
RGAE 5-250	SS 5/250-280	185
RGAE 5-280	SS 5/250-280	188
RGAE 6-300	SS 6/300-350	185
RGAE 6-350	SS 6/300-350	188
RGAE 7-375	SS-375-400	244
RGAE 7-400	SS-375-400	244
RGAE 8-450	SS-450-500	348
RGAE 8-500	SS-450-500	348
RGAE 9-600	*	*

WS		
Speed adjustment controls		
RGAE	Control	S
RGAE 2-100	WS 2/100-130	96
RGAE 2-130	WS 2/100-130	96
RGAE 3-150	WS 3/150-196	112
RGAE 3-190	WS 3/150-196	112
RGAE 3-196	WS 3/150-196	112
RGAE 4-210	WS 4/210-235	112
RGAE 4-235	WS 4/210-235	112
RGAE 5-250	WS 5/250-280	141
RGAE 5-280	WS 5/250-280	144
RGAE 6-300	WS 6/300-350	172
RGAE 6-350	WS 6/300-350	173
RGAE 7-375	WS-375-400	350
RGAE 7-400	SS-375-400	350
RGAE 8-450	SS-450-500	403
RGAE 8-500	SS-450-500	403
RGAE 9-600	*	*

EFV			
Speed adjustment controls			
RGAE	Control	S	T
RGAE 2-100	EFV-L 2/100-130	125	165
RGAE 2-130	EFV-L 2/100-130	125	165
RGAE 3-150	EFV-L 3/150-196	154	199
RGAE 3-190	EFV-L 3/150-196	154	199
RGAE 3-196	EFV-L 3/150-196	154	199
RGAE 4-210	EFV-L 4/210-235	155	199
RGAE 4-235	EFV-L 4/210-235	155	199
RGAE 5-250	EFV-L 5/250-280	193	203
RGAE 5-280	EFV-L 5/250-280	193	203
RGAE 6-300	EFV-L 6/300-350	201	203
RGAE 6-350	EFV-L 6/300-350	201	203
RGAE 7-375	EFV 2/2	268	274
RGAE 7-400	EFV 2/2	268	274
RGAE 8-450	EFV 2/2	268	274
RGAE 8-500	EFV 2/2	268	274
RGAE 9-600	*	*	

DOUBLE PULLEY FOR WIDE V-BELTS



RF b $P_{1max} = 160 \text{ kW}$

A mechanical variable pulley Rb, mounted on the driving shaft (motor shaft) and a spring-loaded variable pulley Fb, mounted on the driven shaft* form a variable pulley set with constant center distance RF b. Also suitable for reversing operation.

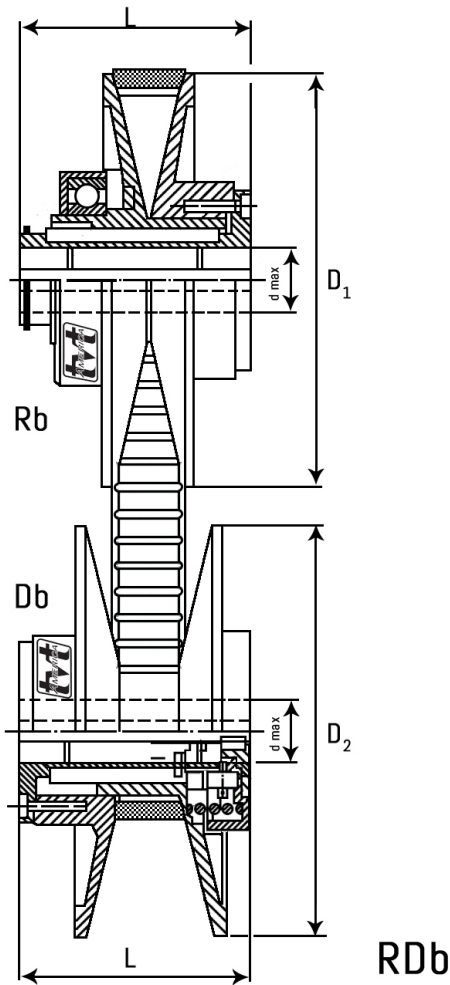
Optimum pressure spring characteristics in the spring-loaded variable pulley guarantee a favorable power ratio over the whole speed range.

* Reverse arrangement possible on request

RF b:

TYPE	SPEED RANGE	MOTOR	Kw	n max/min	Pmax/min	D ₁	L	D ₂	dmax	Belt
RF 080b	5.5	1370	0.37	3210/585	0.33/0.17	91.4	50	91.4	14	17x6
RF100b	5.5	1410	1.5	3260/595	1.35/0.55	120	72	120	24	22x7
RF 130b	7.0	1410	1.5	3733/534	1.35/0.53	135	72	135	24	22x7
RF190b	10.5	1410	1.5	4560/435	1.35/0.75	190	90	190	24	28x8
RF150b	6.5	1420	3.0	3595/555	2.7/0.9	159	90	159	28	28x8
RF190b	9.0	1420	3.0	4230/470	2.7/0.85	190	90	190	28	28x8
RF196b	8.0	1430	4.0	4040/505	3.6/1.2	198	110	198	28	33x10
RF235b	10.5	1430	4.0	4610/439	3.6/1.6	236	122	236	32	37x10
RF210b	7.5	1450	7.5	3970/530	6.7/1.85	220	122	220	38	37x10
RF250b	7.5	1450	11	3970/530	9.9/2.7	255	145	255	42	47x10
RF280b	8.5	1455	15.0	4240/500	13.5/4.1	296	162	296	42	55x15
RF300b	7.2	1460	22	3920/545	19.8/6.1	305	185	305	48	51x16
RF350b	7.4	1465	30.0	4000/540	27/10	346	195	346	55	70x18
RF375b	5.3	1475	45	2760/520	40.5/16	346	220	390	60	83x23
RF400b	5.0	1475	55.0	2575/515	49.5/16.8	372	220	420	65	83x23
RF450b	4.4	1480	75.0	2770/630	67.5/21.2	450	280	470	80	83x26
RF500b	4.0	1480	110.0	1992/498	99/36.5	470	280	580	80	83x26
RF600b	3.0	1480	160.0	1965/655	145/75	506	360	569	90	87x28

DOUBLE PULLEY TORQUE LIMITING



RD b $P_{1max} = 160 \text{ kW}$

This drive unit has a torque dependent control cam in addition to the pressure springs to absorb intermittent overloading or torque peaks.

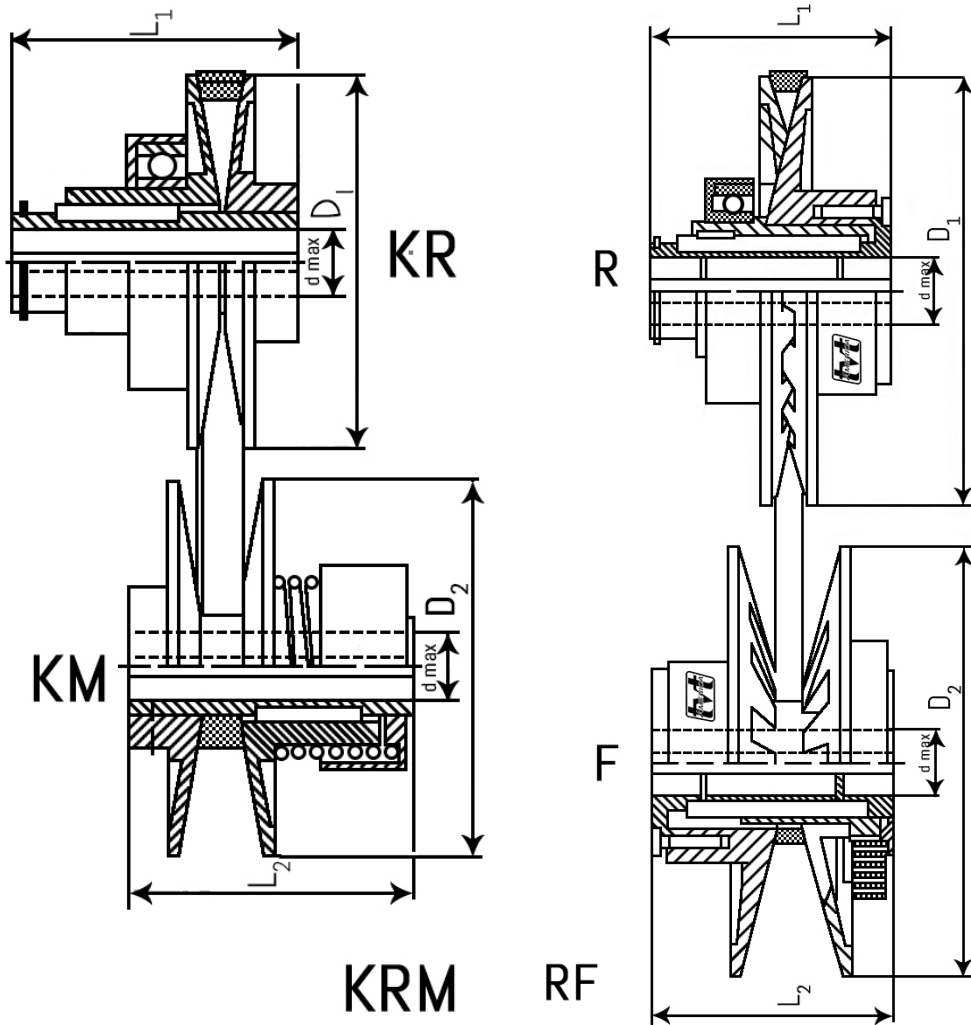
The output pulley operates as a spring pulley up to the nominal power. From this point, the integrated control cam makes the output pulley function like a rigid V-belt drive. Double pulley drives of the type RD b therefore offer a high level of protection against overloading. Not suitable for reversing operation.

RD b:

TYPE	SPEED RANGE	MOTOR	Kw	n max/min	Pmax/min	D ₁	L ₁	D ₂	L ₂	d _{max}	C	Belt
RD210b	7.5	1450	7.5	3970/530	6.7/1.85	220	122	220	135	21	21	37x10
RD280b	8.5	1455	15.0	4240/500	13.5/4.1	296	162	296	182	42	35.5	55x15
RD350b	7.4	1465	30.0	4000/540	27.0/10	346	195	346	215	55	38	70x18
RD400b	5.0	1475	55.0	2575/515	49.5/16.8	372	220	420	250	65	33	83x23
RD500b	4.0	1480	110.0	1992/498	99.0/36.5	470	280	580	305	80	25	83x26
RD600b	3.0	1480	160.0	1965/655	145/75	506	360	596	400	90	40	87x28

DOUBLE PULLEY STANDARD V-BELTS

$$KRM + RF \quad P_{1max} = 160 \text{ kW}$$



A mechanical variable pulley Rb. mounted on the driving shaft (motor shaft) and a spring-loaded variable pulley Fb, mounted on the driven shaft* form a variable pulley set with constant center distance RF b. Also suitable for reversing operation. Optimum pressure spring characteristics in the spring-loaded variable pulley guarantee a favorable power ratio over the whole speed range.
* Reverse arrangement possible on request

KRM:

TYPE	SPEED RANGE	MOTOR	Kw	n max/min	Pmax/min	D ₁	L ₁	D ₂	L ₂	dmax	Belt
KRM 80.10	6.0	1370	0.25	3280/550	0.33/0.13	80	60	80	65	14	10X6
KRM 105.13	6.0	1370	0.55	3350/560	0.68/0.41	105	80	105	80	19	13X8
KRM 127.17	6.0	1420	0.75	3480/580	1.0/0.46	127	80	127	80	24	17X11

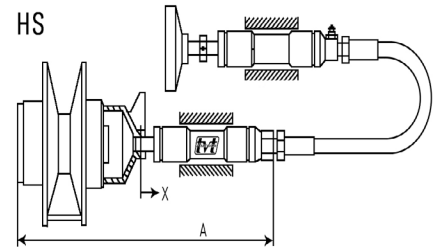
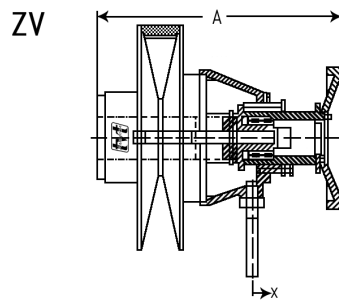
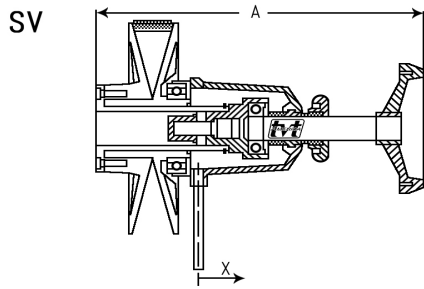
RF :

TYPE	SPEED RANGE	MOTOR	Kw	n max/min	Pmax/min	D ₁	L ₁	D ₂	L ₂	dmax	Belt
RF 100	5.0	1370	0.37	3065/612	0.33/0.14	110	72	110	72	24	10X6
RF 150	6.5	1410	1.5	3595/550	1.4/0.6	158	90	158	90	24	13X8
RF 210	8.0	1420	3.0	4100/500	2.7/1.4	220	122	220	122	28	17X11
RF 280	8.5	1450	5.5	4230/497	4.9/2.7	292	162	292	162	42	22X14

DOUBLE PULLEY FOR WIDE V-BELTS

SPEED CONTROLS SV,ZV & HS

The Variable pulley control and control device are mounted together centrally on the drive shaft. This arrangement has the advantage of no axial loads on the motor shaft bearings. The hand wheels are optionally available as scale wheels.



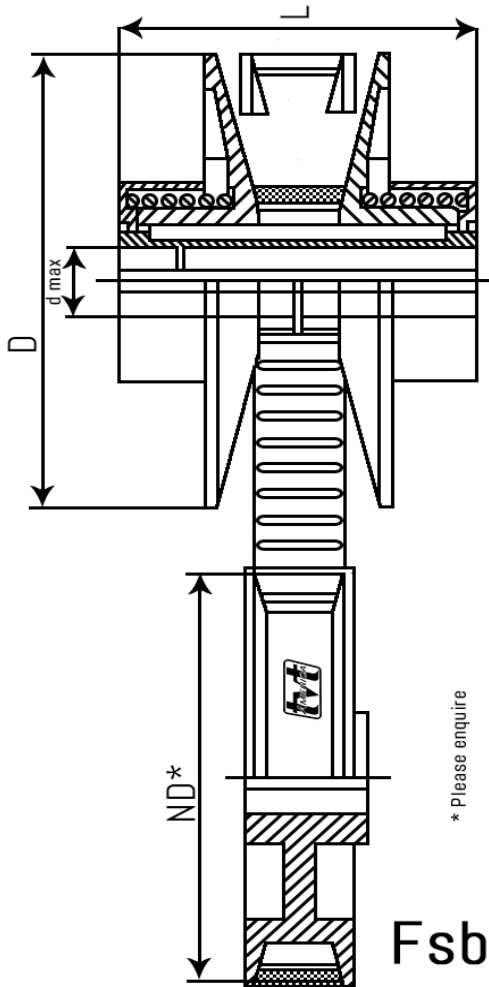
SPEED ADJUSTMENT CONTROLS FOR RGAE

SV					ZV					HS				
Speed adjustment controls					Speed adjustment controls					Speed adjustment controls				
Size	Type	X ₁	X ₂	A	Size	Type	X ₁	X ₂	A	Size	Type	X ₁	X ₂	A
105.13	SV1	-	10.2	230	375 b	ZV 375	48.0	-	386	100 b	HS 100-130	15.5	16.3	263
100 (b)	SV1	15.5	15.7	222	400 b	ZV 400	50.0	-	367	130 b	HS 100-130	18.0	-	263
130 b	SV1	18.0	-	222	450 b	ZV 450/500	57.0	-	467	150 (b)	HS 150-196	22.0	24.5	298
127.17	SV2		13.4	249	500 b	ZV 450/500	59.0	-	467	190 b	HS 150-196	24.0	-	298
150 (b)	SV2	22.0	24.5	259	600 b	ZV 600	61.5	-	610	196 b	HS 150-196	27.0	-	298
190 (b)	SV2	24.0	-	259						210 (b)	HS 210-235	30.6	37.0	310
196 b	SV2	27.0	-	279						234 b	HS 210-2350	31.5	-	332
210 (b)	SV2	30.6	37.5	291						250 b	HS 250-280	36.6	-	360
235 b	SV2	31.5		291						280 (b)	HS 250-280	44.0	50.5	387
250 b	SV3	36.6	-	356										
280 (b)	SV3	44.0	51.5	373										
300 b	SV3	40.4	-	396										
350 b	SV3	50.0	-	406										

X₁ Adjustment for wide V-belt

X₂ Adjustment for standard V-belt

SINGLE PULLEY DRIVE FOR WIDE BELTS



$$F(s)b \quad P_{1max} = 55 \text{ kW}$$

In this system, a spring pulley which opens on one side (Fb) or on both sides (Fbs) is used in conjunction with a fixed driven pulley. Speed adjustment takes place by adjusting the center distance by way of the motor carriage or tilting base. With angled movement for the pulleys opening on one side only linear movement for pulleys opening on both sides. The spring loaded variable pulley is mounted on the drive shaft as standard.

*Reverse arrangement is possible on request.

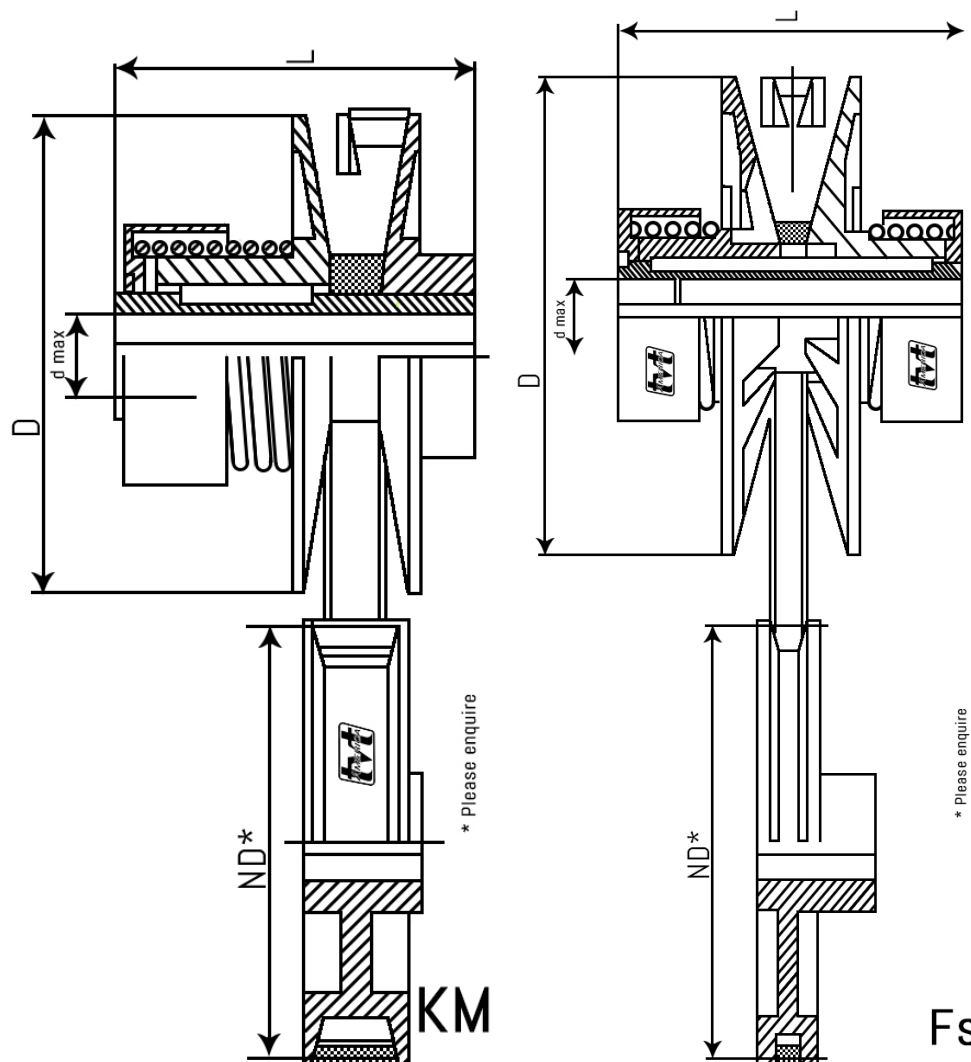
Fsb

TYPE	SPEED RANGE	MOTOR	Kw	Pmax/min	D ₁	L	dmax	Belt
F100 sb	2.3	1380	0.75	0.66/0.29	120	80	24	22x7
F130 sb	2.6	1380	0.75	0.67/0.26	135	80	24	22x7
F150 sb	2.5	1410	1.5	1.35/0.55	159	115	28	28x8
F190 sb	3.2	1410	1.5	13.5/0.44	190	115	28	28x8
F210 sb	2.7	1420	3.0	2.7/1.2	220	148	38	37x10
F235 sb	3.2	1420	3.0	2.7/1.0	236	148	32	37x0
F250 sb	2.7	1430	4.0	3.6/1.5	255	170	42	47x12
F280 ssb	2.9	1450	7.5	6.7/2.1	296	190	42	55x15
F325 sb	2.8	1450	11.0	9.9/4.6	346	240	48	70x18
F350 sb	2.7	1450	18.5	16.6/7.0	346	240	55	72x22
F400 sb	2.7	1475	30.0	27.0/11.3	400	300	65	93x23

SINGLE PULLEY FOR STANDARD BELT

KM + Fs

$$P_{1max} = 5.5kW$$



A fixed driven pulley is required in each case for use with these single pulley drives for standard V-belts. The spring-loaded variable pulley can be opened wither on one side (KM) as a smooth pulley or on both sides (Fs) as an interlacing type pulley. The spring loaded pulley is mounded on the drive shaft as standard. Reverse arrangement is possible on request.

KM

TYPE	SPEED RANGE	MOTOR	Kw	n max/min	Pmax/min	D ₁	L ₁	D ₂	L ₂	dmax	Belt
KRM 80.10	6.0	1370	0.25	3280/550	0.33/0.13	80	60	80	65	14	10X6
KRM 105.13	6.0	1370	0.55	3350/560	0.68/0.41	105	80	105	80	19	13X8
KRM 127.17	6.0	1420	0.75	3480/580	1.0/0.46	127	80	127	80	24	17X11

Fs:

TYPE	SPEED RANGE	MOTOR	Kw	P max	P min	D	L	dmax	Belt
F 100 s	2.2	1370	0.37	0.33	0.14	110	72	110	10X6
F 150 s	2.5	1410	1.1	1.0	0.4	158	115	28	13X8
F 210 s	2.8	1420	3.0	2.8	0.9	220	148	38	17X11
F 280 s	2.9	1450	5.5	5.0	1.7	292	190	42	22X14

Headquarters, global innovation and development center

TVT America LLC.
PO Box 998
709 S. Business Hwy 65
Branson, Mo 65616
Tel.: 866-285-5055
Fax: 866-768-4927
info@tvtagnerica.com
www.tvtagnerica.com.com

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