

Variable transmission for heavy duty: SVT371

IN DEVELOPMENT PHASE

1 Specifications

A variable automatic transmission providing ratios from overdrive to reduction for very long lasting and 24/7 non-stop industrial applications. The output is a pulley for a V-belt drive.

AUTOMATIC VARIABLE TRANSMISSION: FEATURES

Compact transmission offering variable ratios

Accurate control of speed ratio by electronic control unit

Control unit manages continuously the optimal output speed for any customizable criterium

Exceptionally high overall transmission efficiency

No torque or efficiency dip during ratio variation

Unnoticeable delay on request for ratio change

Very few components, robust construction

Nearly silent operation

Equally functioning in 4 quadrants: driving & braking, both rotation senses

Input shaft customizable for a direct fit on the driving engine

Output shaft customizable with bearings designed for tension of belt drive

Durable for non-stop operation

Hydraulic actuation (not shown yet) placed next to transmission

Input and output shaft inline at opposite side of transmission

Output shaft rotates in opposite sense relative to input shaft rotation

TECHNICAL SPECIFICATIONS (PRELIMINARY)

Model name	SVT371
Design application	Driving heavy duty industrial applications
Transmission length (incl. – excl. belt pulley)	409 (incl.) – 313 (excl.)
Transmission outer diameter	330 mm
Transmission weight (incl. – excl. belt pulley)	xx (incl.) - 58 (excl.) kg
Highest speed ratio	1.000 (torque ratio 1:1)
Lowest speed ratio	0.467 (torque ratio 2.141:1)
Ratio spread	2.141
Max output torque	600 Nm
Design input torque	600 Nm
Design power level	90 kW
Overall efficiency: max – weighed over driving cycle	97.7 – 96.9 %

Reaction time on ratio change request
Typical inaccuracy on dynamic ratio request
Typical inaccuracy on static ratio request
Design life

57 ms
0.15 % = 1.5 RPM output error on 1000 RPM input
0.00 to 0.05 %
Min 10 years 24/24 7/7 (in specific duty cycle)

2 Dimensions

Preliminary dimensions

