



Toase-eh Park Sanati Gohar Ofogh
Petrochemical Co.
**CONCEPTUAL, BASIC and DETAIL DESIGN
ENGINEERING OF STYRENE PARK OFFSITE**



Document Title: Belt & Pulley Data Sheet

Document No.: EI027-DMF-VD-ME-DSH-018-R0

Rev. R1

Page 1 of 4

STYRENE PARK OFFSITE

Document Title:
Belt & Pulley Data Sheet

Rev.	Issued Date	DESCRIPTION	PREPARED	CHECKED	APPROVED
R1	31-08-2024	IFA	F.Aghaienezhad	J.Beigloo	A.Gholizadeh
R0	22-06-2024	IFA	F.Aghaienezhad	J.Beigloo	A.Gholizadeh



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Page 2 of 4

REVISION RECORD SHEET

Page Page	Revisions							Page	Revisions						
	R0	R1	R2	R3	R4	R5	R6		R0	R1	R2	R3	R4	R5	R6
1	X	X						41							
2	X	X						42							
3	X	X						43							
4	X	X						44							
5								45							
6								46							
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 	Toase-eh Park Sanati Gohar Ofogh Petrochemical Co. CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE	 
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DATA SHEET FOR PULLEY BELT TRANSMISSION			
BASIC DATA FOR TRANSMISSIONS			
1	Customer items/DTT items	AIR COOLER	
2	Belt type	V-Belt	
3	Total quantity of belt		2Set
4	Motor power	(KW)	7.5
5	Motor frame size		-
6	Speed motor	(rpm)	1440
7	Speed fan	(rpm)	382
8	Speed ratio		3.76
9	Minimum service factor		1.4
10	Real service factor		1.8
11	Min. Max. Center Distance	(mm)	835 ±85
12	Center distance	(mm)	754.3
13	Belt width<QTY	(mm)	-- /2Set
14	Belt order info		CAPXPA2332
15	Belt drive life	(Hours)	V- belt estimated life~20000
16	Transmitted power	(kW)	13.75
17	Driver	QTY	2
		code	PBT106SPA2
		Pitch Dia	(mm) 106
		Pitch of Groove	(mm) -
		Number of Grooves	2
		Width	-
		Bush no	1610
		Bore	(mm) -
Material/Weight	GG20 /-		
18	Driven	QTY	2
		code	PBT400SPA2
		Pitch Dia	(mm) 400
		Pitch of Groove	(mm) -
		Number of Grooves	2
		Width	-
		Bush no	2517
		Bore	(mm) -
Material/Weight	GG 20 /-		
19	Deflection force	(N)	-
20	Deflection	(mm)	-
21	Maximum tension	(N)	561
22	Noise	dB(A)	85



INPUT DATA

Transmission type	2 Pulleys power transmission
Product family	NEXT®
Type	Narrow Raw Edge (XPZ,XPA,XPB,XPC)
Section	XPA

Power [kW]	7.50
Speed [RPM]	1440.0
Torque [Nm]	49.7
Required service factor	1.4

BELT

Code	CAPXPA2332
Length [mm]	2332.00
Number of belts / ribs [-]	2

RESULT

Resulting service factor	1.8
Transmissible power [kW]	13.75
Linear speed [m/s]	8.0
Center-to-center [mm]	754.3

PULLEYS

	Solid hub pulley code	Taper bushing code	External	Number of ribs	Pulley diameter [mm]	X [mm]	Y [mm]
Driver	PT106SPA2	PBT106SPA2	No	2	106.00	0	0
Driven	PT400SPA2	PBT400SPA2	No	2	400.00	754.26	0

	Transmission ratio	Speed [RPM]	Wrap angle [°]	Power [kW]	Torque [Nm]	Static shaft load [N]
Driver	--	1440.0	157.5	7.50	49.7	1693.3
Driven	0.26	381.6	202.5	7.50	187.7	1693.3

TENSIONING

Maximum tension [N]	561	Minimum tension [N]	432
		Vibration frequency method	
Free segment length [mm]		New belt frequency [Hz]	Run-in belt frequency [Hz]
Driver-Driven	739.8	52 ± 2%	46 ± 2%