

**EUROMAP
26
Annex**

**PROTOCOL FOR COMMUNICATION BETWEEN
EXTRUSION LINES AND A CENTRAL
COMPUTER APPLICATION
VARIABLE LIST FOR EXTRUSION LINES**

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(24 pages)

This recommendation has been prepared by the Technical Commission of EUROMAP.

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	SP			SP	RET	RET	RET	RET
Data Set File name for Up- and Download												
Data Set												
General Parameters												
Data Set File name for Up- and Download												
Confirming Variable for Data Set Up- and Download												
Control Variable for searching new filenames												
energy consumption of line												
alarm 1 corresponding to text file of manufacturer												
alarm 2 corresponding to text file of manufacturer												
alarm 3 corresponding to text file of manufacturer												
alarm 4 corresponding to text file of manufacturer												
alarm 5 corresponding to text file of manufacturer												
alarm 6 corresponding to text file of manufacturer												
alarm 7 corresponding to text file of manufacturer												
alarm 8 corresponding to text file of manufacturer												
alarm 9 corresponding to text file of manufacturer												
alarm 10 corresponding to text file of manufacturer												
B0: production												
B1: preparation for production												
B2: production target reached												
B3: prod. interrupted, no reason specified												
B4: prod. interrupted, stopped by operator												
B5: prod. interrupted, safety conditions												
B6: prod. interrupted, maintenance												
number of parts												
length to be produced												
B0: threading												
B1: preheating												
B2: heating up												
B3: stopped												
B4: manual												
alarms												
production status												
production target												
extrusion line status												
auto status												
automatic 1												
automatic 2												
automatic 3												
automatic 4												
automatic 5												
automatic 6												
automatic 7												
automatic 8												
automatic 9												
automatic 10												
operator ID												
job status												
job code												
E_DATASETFILENAME												
E_OKVARIABLE												
E_NEWFILENAME												
E_ENCONLINE												
E_MAL_1												
E_MAL_2												
E_MAL_3												
E_MAL_4												
E_MAL_5												
E_MAL_6												
E_MAL_7												
E_MAL_8												
E_MAL_9												
E_MAL_10												
E_PRODSTAT												
E_PRODARNUM												
E_PRODTARLEN												
E_LINESTAT												
E_LINEAUTO1												
E_LINEAUTO2												
E_LINEAUTO3												
E_LINEAUTO4												
E_LINEAUTO5												
E_LINEAUTO6												
E_LINEAUTO7												
E_LINEAUTO8												
E_LINEAUTO9												
E_LINEAUTO10												
E_OPIDENT												
E_JOBCODE												

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRPT	VALTYPE	NUMSCALE	NUMPRES	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE
Feeding System	Feeding 1	gravimetric										
	VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT	SMALLINT	VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
				code of next job							E_NXTJOB	
				part code							E_PARTCODE	V
				amount		1	6	mm			E_PARTAMOUNT	I
				length		0	14	ymdhrmin			E_LNGTHONEPRT	R
				job target				kg			E_DATENDJOB	V
				total material consumption							E_F1GRTOTMATCON	I
				partial material consumption							E_F1GRPRMATCON	R
				total throughput		1	5	kg/h	RW		E_F1GRTOTTHRSP	R
				throughput	material 1			kg/h%	RW		E_F1GRTOTTHRAC	R
				density					RET		E_F1GRMAT1THRS	R
				B0: refill time expired					RET		E_F1GRMAT1THRA	R
				B1: weight less than 2%					RW		E_F1GRMAT1DENS	R
				B2: weight process failure					ET		E_F1GRALMAT1	I
				B3: refill failure								
				B4: speed error +								
				B5: speed error -								
				B6: dosing factor error								
				not implemented yet								
				current					AC		E_F1VOCURR	S
				speed				m/min	RET		E_F1VOSPD	S
				width of skid				mm			E_F1VOSKIDWDTH	S
				thickness of skid							E_F1VOSKIDWTH	S
				material code							E_F1VOMATCODE	V
				B0: no material			6		ET		E_F1VOALARM	I
				B1: metal in material								
				B2: screw blocked								
				B0: ready								
				current					AC		E_F1VOSTAT	S
				screw speed			2	5 min -1	RET		E_F1STUFUR	S
				torque of stuffer motor				Nim	RW		E_F1STUFQNM	R
				current				%	RW		E_F1STUFQPC	I
				screw speed			2	5 min -1	RET		E_FITWNCUR	S
				temperature			1	4 °C, °F	RW		E_FITWNSPD	R
				plus/minus-tolerance of temp.							E_EXIT1AC	R
				energy consumption			1	4 kWh	RET		E_EXIT1SP	S
				controller output of energy consumption				%	RET		E_EXIT1ENCON	R
											E_EXIT1ENCTRL	R

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRPT	VALTYPE	NUMSCALE	SMALLINT	NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT	SMALLINT		VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
			alarms	B0: high temperature B1: low temperature B2: optional						ET		E_EX1T1ALARM	I
		melt temperature 1				1	4	°C,°F		RET		E_EX1MELT1	R
		melt temperature 2										E_EX1MELT2	
		start up enable temperature										E_EX1ENABT	
		speeds		screw speed	SP		5	min -1		RW		E_EX1SPDAC	
		pressures		pressure 1	AC					RET		E_EX1SPDSP	
				pressure 2	SP					RW		E_EX1PRES1	S
				pressure 3	AC					RET		E_EX1PRES2	
				pressure 4	AC					RET		E_EX1PRES3	
				screw torque								E_EX1PRES4	
		torques		current					Nm			E_EX1TRQNM	I
		current		armature voltage					%			E_EX1TRQPC	S
		voltage							A			E_EX1CUR	
		vacuum 1							V			E_EX1ARMV	
		vacuum 2							mbar			E_EX1VAC1	
		vacuum 3										E_EX1VAC2	
		vacuum 4										E_EX1VAC3	
		vacuum 5										E_EX1VAC4	
		vacuum 6										E_EX1VAC5	
		vacuum 7										E_EX1VAC6	
		vacuum 8										E_EX1VAC7	
		vacuum 9										E_EX1VAC8	
		vacuum 10										E_EX1VAC9	
		alarms		B0: emergency stop B1: overload B2: melt temperature too high B3: melt temperature too low B4: pressure too high B5: melt filter clogged B6: carbon brush B0: on/off B1: preheating						ET		E_EX1VAC10	I
		status										E_EX1ALARM	
		speeds		pump speed			2	5	min -1	RET		E_EX1STATUS	
Melt Pump and Vacuum System	Melt Pump 1											E_MP1SPDAC	R
		temperature zone 1		temperature			1	4	°C,°F			E_MP1SPDSP	RW
										RET		E_MP1TZ1AC	RET
										RW		E_MP1TZ1SP	RW

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARIABLE	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT	SMALLINT	VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
			alarms	plus/minus-tolerance of temp. B0: high temperature B1: low temperature B2: optional temperature	AC				ET		E_MP1TZ1TOL E_MP1TZ1ALARM	S
		temperature zone 2	alarms	plus/minus-tolerance of temp. B0: high temperature B1: low temperature B2: optional temperature	SP	1	4 °C,°F		RET RW		E_MP1TZ2AC E_MP1TZ2SP E_MP1TZ2TOL E_MP1TZ2ALARM	R
		temperature zone 3	alarms	plus/minus-tolerance of temp. B0: high temperature B1: low temperature B2: optional temperature	SP	1	4 °C,°F		RET RW		E_MP1TZ3AC E_MP1TZ3SP E_MP1TZ3TOL E_MP1TZ3ALARM	R
		temperature zone 4	alarms	plus/minus-tolerance of temp. B0: high temperature B1: low temperature B2: optional temperature	SP	1	4 °C,°F		RET RW		E_MP1TZ4AC E_MP1TZ4SP E_MP1TZ4TOL E_MP1TZ4ALARM	R
		pressures		inlet pressure	SP			bar	RW		E_MP1PRESINSP	S
		current		outlet pressure	AC				RET		E_MP1PRESINAC	S
		torque		current of pump motor							E_MP1PRESOUAC	S
		alarms		torque of pump motor				A			E_MP1CURR	S
				B0: motor overload				Nm			E_MP1TRQ	S
				B1: drive fault					ET		E_MP1ALARM	I
				B2: inlet pressure low								
				B3: inlet pressure high								
				B4: outlet pressure low								
				B5: outlet pressure high								
				B6: outlet transducer fault								
				B0: general failure								
				B1: overload								
				B2: overtemperature								
				temperature							VACSYSALARM	
Die-Head	Head	temperature zone 1		plus/minus-tolerance of temp. energy consumption	SP	1	4 °C,°F		RET RW		E_HDTZ1TAC E_HDTZ1TSP E_HDTZ1TOL	R
					AC	1	4 kWh		RET		E_HDTZIENCON	S

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT	SMALLINT	VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
			alarms	controller output of energy consumption B0: high temperature B1: low temperature B2: optional			%		ET		E_HDTZ1CONQU E_HDTZ1ALARM	S
		temperatures		melt temperature 1 melt temperature 2 melt temperature 3 melt temperature 4 melt temperature 5 melt temperature 6 melt temperature 7 melt temperature 8 melt temperature 9 melt temperature 10		1	4 °C,°F	RET			E_HDMELT1 E_HDMELT2 E_HDMELT3 E_HDMELT4 E_HDMELT5 E_HDMELT6 E_HDMELT7 E_HDMELT8 E_HDMELT9 E_HDMELT10	R
		pressures		pressure 1 pressure 2 pressure 3 pressure 4 pressure 5 pressure 6 pressure 7 pressure 8 pressure 9 pressure 10			bar				E_HDPRES1 E_HDPRES2 E_HDPRES3 E_HDPRES4 E_HDPRES5 E_HDPRES6 E_HDPRES7 E_HDPRES8 E_HDPRES9 E_HDPRES10	S
		status	alarms	B0: pressure high B0: head open B1: head closed					ET RET		E_HDPRESAL E_HDSTATUS	I
Blown Film	Internal Bubble Cooling Device	temperature volume motors	speeds	air temperature air volume external blower inner blower inner exhauster		1	4 °C m3/min min -1				E_IBCAIRTEMP E_IBCAIRVOL E_IBCSPDEXBLOSP E_IBCSPDEXBLOAC E_IBCSPDINBLOSP E_IBCSPDINBLOAC E_IBCSPDEXHAUSP E_IBCSPDEXHAUJAC E_IBCMOTALARM	R S
		alarms		B0: external blower motor fault B1: internal blower motor fault B2: exhauster motor fault					RET ET RW		E_IBCROBPOS E_IBCROBALARM	S I I
		probe	position alarm	control signal amount B0: bubble breakdown vertical			% mm				E_BGCPOS E_BGCPOSVERTSP	I S
	Bubble Guide Cage	position										

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARIABLE	SQL_TYPE
VAR(30)	VAR(40)	VAR(30)	VAR(30)	LONG VARCHAR	VAR(2)	SMALLINT	SMALLINT	VAR(10)	VAR(5)	VAR(2)	VAR(16)	VAR(1)
				x-Axis	AC				RET		E_BGCPOSVERTAC	
				y-Axis	AC				RW		E_BGCPOSXSP	
				diameter	AC				RET		E_BGCPOSXAC	
				position of frostline	AC				RW		E_BGCPOSYSP	
				B0: vertical motor fault	AC				RET		E_BGCPOSYAC	
				B1: x-axis motor fault	SP				RW		E_BGCPOSDIASP	
				B2: y-axis motor fault	AC				RET		E_BGCPOSIAAC	
				B3: open/close motor fault	SP				RW		E_BGCPOSFROST	
				left flattening board	AC				ET		E_BGCALARM	I
Flattening Boards				position	SP			mm	RW		E_FBLEFTSP	S
				right flattening board	AC				R		E_FBLEFTAC	
				left gusseting device, point	SP				RW		E_FBRGHTSP	
				left gusseting device, bottom	AC				RET		E_FBRGHTAC	
				right gusseting device, point	SP				RW		E_GDLEFTPNTSP	
				right gusseting device, bottom	AC				RET		E_GDLEFTPNTAC	
Flattening Boards and Gusseting Device				alarm	SP				RW		E_GDLEFTBTMSP	
				motor overload	AC				RET		E_GDLEFTBTMAC	
				B0: left flattening board	AC				RW		E_GDRGTPNTSP	
				B1: right flattening board	AC				RET		E_GDRGTPNTAC	
				B2: left gusseting device bottom	SP				RW		E_GDRGTPNTSP	
				B3: right gusseting device point	AC				RET		E_GDRGTPNTAC	
				B5: right gusseting device bottom	SP				RW		E_GDRGBTMSP	
					AC				ET		E_GDRGBTMAC	I
Film Profile				profile point 1					RET		E_FILMPROF1	R
				profile point 360				4	6 mm		E_FILMPROF360	
				wallthickness					RW		E_FPWLTHCKSP	
				setpoint	SP				RET		E_FPWLTHCKMAX	
				minimum	AC						E_FPWLTHCKMIN	
				average					RW		E_FPWLTHCKAVE	
				positive tolerance	SP			5			E_FPWLTHCKPT	
				negative tolerance					RW		E_FPWLTHCKNT	
				setpoint	AC			6	RET		E_FPWLTHCKEXC	
				tolerance	SP			5	RW		E_FPWLTHCKTOL	
				setpoint				2			E_FFDIASETPT	
				diameter				6				

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRPT	VALTYPE	NUMSCALE	SMALLINT	NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)				VARCHAR(10)	VARCHAR(S)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
				alarms	AC	3	4			RET		E_FPDIAMAX E_FPDIAMIN E_FPDIAAVE E_FPDIAPOSTOL E_FPDIANEGTOL E_FPDIALARMS E_FPALARMS	
				alarms	AC					ET			
				status						RET		E_FPSTATUS	
				status									
				temperature zone 1	SP	1	4	°C		RW		E_ROTTEMP1 E_ROTTEMP2 E_ROTTEMP3 E_ROTTEMP4 E_ROTTEMP5	R
				temperature zone 2									
				temperature zone 3									
				temperature zone 4									
				temperature zone 5									
				speeds									
				take-off	AC				m/min	RET		E_ROTSPDTKOFFSP	
				rotation	SP	2	3	1/h		RW		E_ROTSPDR0TSP	
				rotation time	AC					RET		E_ROTSPDR0TAC	
				rotation angle	SP	1	4	min		RW		E_ROTSPDTIMSP	
				motor	AC				deg	RW		E_ROTSPDANGLE	S
				blower 1	SP					RET		E_ROTCURMOT	
				blower 2	AC				A	RET		E_ROTCURBLO1 E_ROTCURBLO2	
				alarms						ET		E_ROTALARM	
				alarms									
				product width					6 mm	RET		E_WDCTPRODWIDTH	R
				correction factors									
				side cutting left	SP				mm	RW		E_WDCTCORRFAC	S
				side cutting right								E_WDCTSDCUTLEFT E_WDCTSDCUTRIGHT	
				tolerance								E_WDCTTOL	
				alarm	AC					ET		E_WDCTTOLALARM	I
				alarm									

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARIABLE	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT	SMALLINT	VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
Corona Treatment												
		generator power			SP	1	3 kW		RW		E_CORTGENP	R
		pull			AC				RET		E_CORTGENP	WSP
		treatment intensity			SP		%		RW		E_CORTPULL	
		speed/intensity ratio			AC				RET		E_CORTINTENS	
		treatment tension			SP	2	dyn		RW		E_CORTRATIO	S
		alarms			AC				RET		E_CORTTENSION	I
				B0: treatment device fault					ET		E_CORTALARM	
		entry nip-roll	dancer roll		SP	N			RW		E_WNDDNCR	S
				B1: shut-off for short circuit	AC				RET		E_WNDDNCR	LFRFCAC
				pulling force							E_WNDDNCR	LFRFCAC
		nip-roll 1	station 1	motor current	SP	1	A		RW		E_WNDNP1	ST1FRFCSP
				pulling force	AC		4 N		RET		E_WNDNP1	ST1FRFCAC
		nip-roll 2	station 2	motor current	SP	1	A		RW		E_WNDNP2	ST2FRFCSP
				pulling force	AC		4 N		RET		E_WNDNP2	ST2FRFCAC
		winder 1	status	motor current	SP				RW		E_WNDNP2	ST2CUR
				B0: contact winding					RET		E_WNDNP2	STAT
				B1: axial winding							E_WND1	STAT
				B2: automatic							E_WND1	STAT
			pressure	winding pressure							E_WND1	STAT
					SP	N			RW		E_WND1	PRESSP
			target		AC				RET		E_WND1	PRESAC
				reel target (length)	SP		m		RW		E_WND1	TARGLEN
			length	reel target (diameter)			mm				E_WND1	TARGDIA
				actual length	AC		m		RET		E_WND1	TARGDIA
				bad length							E_WND1	TARGDIA
			diameter	actual diameter			mm				E_WND1	TARGDIA
			number	number of good reels since reel change							E_WND1	TARGDIA
			dancer roll	number of failed cycles since reel change	SP	1	4 N		RW		E_WND1	TARGDIA
				pulling force	AC				RET		E_WND1	TARGDIA
			alarm						ET		E_WND1	TARGDIA
				B1: motor overload							E_WND1	TARGDIA
				B0: drive fault							E_WND1	TARGDIA
			status	B0: contact winding					RET		E_WND1	TARGDIA
				B1: axial winding							E_WND1	TARGDIA
			pressure	B2: automatic					RET		E_WND1	TARGDIA
				winding pressure							E_WND1	TARGDIA
			target		SP	N			RW		E_WND2	PRESSP
				reel target (length)	AC				RET		E_WND2	PRESAC
			length	reel target (diameter)	SP		m		RW		E_WND2	TARGLEN
				actual length	AC		mm		RET		E_WND2	TARGDIA
				reel target (length)							E_WND2	TARGDIA
				reel target (diameter)							E_WND2	TARGDIA
			length	actual length	AC		m		RET		E_WND2	TARGDIA

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE
VAR	CHAR(30)	VAR	CHAR(40)	VAR	CHAR(30)	VAR	CHAR(30)	LONG	VAR	CHAR(16)	VAR	CHAR(1)
				bad length				mm			E_WND2BADLENGTH	S
			diameter number	actual diameter							E_WND2ACDIA	S
			dancer roll alarm	number of good reels since reel change							E_WND2GOODREELS	I
			dancer roll alarm	number of failed cycles since reel change							E_WND2FAILREELS	R
				pulling force	SP	1	4	N	RW		E_WND2PULFRCS	I
				B1: motor overload	AC				ET		E_WND2ALARM	R
				B0: drive fault							E_WND2PULFRCAC	R
				pulling force					RET		E_WNDALARM	I
				B0: entry nip roll supply air low pressure								
				B1: entry nip roll motor overload								
				B2: entry nip roll drive fault								
				B3: nip roll 1 motor overload								
				B4: nip roll 1 drive fault								
				B5: nip roll 2 motor overload								
				B6: nip roll 2 drive fault								
				B0: winder 1 auto cycle interrupted								
				B1: loader 1 loading cycle fault								
				B2: winder 2 auto cycle interrupted								
				B3: loader 2 loading cycle fault								
				film length since reset								
				position of blade 1	SP			m	RET		E_WNDLENGTH	S
				position of blade 2				mm	RW		E_WNDCUTBLADE1	
				position of blade 3							E_WNDCUTBLADE2	
				position of blade 4							E_WNDCUTBLADE3	
				position of blade 5							E_WNDCUTBLADE4	
				position of blade 6							E_WNDCUTBLADE5	
				position of blade 6							E_WNDCUTBLADE6	
Flat Sheet				basic speed of line							E_CALBASSPD	R
				speed slipping				5	m/min		E_CALMOT1SLIP	
				speed				%			E_CALMOT1SPD	
				current				m/min	RET		E_CALMOT1CUR	S
				alarms				A	ET		E_CALMOT1ALARM	I
				B0: drive fault								
				B1: drive overload								
				speed slipping								
				speed				5	RW		E_CALMOT2SLIP	R
				current				m/min	RET		E_CALMOT2SPD	S
				alarms				A	ET		E_CALMOT2ALARM	I
				B0: drive fault								
				B1: drive overload								
				speed slipping								
				speed				5	RW		E_CALMOT3SLIP	R
				current				m/min	RET		E_CALMOT3SPD	S
				alarms				A	ET		E_CALMOT3ALARM	I
				B0: drive fault								
				B1: drive overload								
				speed slipping								
				speed				5	RW		E_CALMOT3SLIP	R
				current				m/min	RET		E_CALMOT3SPD	S
				alarms				A	ET		E_CALMOT3ALARM	I
				B0: drive fault								
				B1: drive overload								

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT	SMALLINT	VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
			alarms	B0: drive fault B1: drive overload					ET		E_CALMOTSALARM	I
	ratio		motor 1/2		SP	5	6		RW		E_CALRAT1_2	R
		position	motor 2/3								E_CALRAT2_3	
			vertical		AC	1	5 mm		RW		E_CALPOSVERTSP	
			horizontal		SP				RET		E_CALPOSHORAC	
			height, front		AC				RW		E_CALPOSHORSP	
			height, rear		SP				RET		E_CALPOSHORAC	
					AC				RW		E_CALPOSHORSP	
			distance from zero		SP				RET		E_CALPOSHORAC	S
			temperature		SP				RW		E_CALPOSHORSP	
	roll 1		tolerance		AC				RET		E_CALPOSHORAC	
			alarms	B0: deviation B1: thermoregulation fault B2: low/level	SP			°C	RET		E_CALPOSHORSP	
	roll 2		temperature		AC				RW		E_CALPOSHORAC	
			tolerance		SP				RET		E_CALPOSHORSP	
			alarms	B0: deviation B1: thermoregulation fault B2: low/level	AC				RW		E_CALPOSHORAC	
	roll 3		temperature		SP			°C	RET		E_CALPOSHORSP	S
			tolerance		AC				RW		E_CALPOSHORAC	
			alarms	B0: deviation B1: thermoregulation fault B2: low/level	SP				RET		E_CALPOSHORSP	
	roll gaps		roll 1/2		AC	3	5 mm		RW		E_CALPOSHORAC	
			roll 2/3		SP	5			RET		E_CALPOSHORSP	R
					AC	6			RW		E_CALPOSHORAC	
					SP	6			RET		E_CALPOSHORSP	
					AC	5			RW		E_CALPOSHORAC	
					SP	6			RET		E_CALPOSHORSP	
					AC	5			RW		E_CALPOSHORAC	
					SP	6			RET		E_CALPOSHORSP	
					AC	5			RW		E_CALPOSHORAC	
					SP	6			RET		E_CALPOSHORSP	
					AC	5			RW		E_CALPOSHORAC	
					SP	6			RET		E_CALPOSHORSP	
					AC	5			RW		E_CALPOSHORAC	

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARIABLE	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT		VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
			alarms	B0: safety emergency off B1: roll 1/2 out of alignment B2: roll 2/3 out of alignment B3: closing device 1 fault B4: closing device 2 fault B5: closing device 3 fault B6: closing device 4 fault B0: ready to close 1/2 B1: ready to close 2/3 B0: active					ET		E_CALGAPALARM	I
Infra-Red Heaters	group 1		status		SP		%		RET		E_CALGAPSTATUS	S
	group 2		setpoint current status	B0: active	AC		A		RET		E_HEATGR1STAT E_HEATGR1SP E_HEATGR1CUR	S
	group 3		setpoint current status setpoint current	B0: active	AC		A		RET		E_HEATGR2STAT E_HEATGR2SP E_HEATGR2CUR E_HEATGR3STAT E_HEATGR3SP E_HEATGR3CUR	S
Sheet Profile	alarms			B0: active	AC	xx	A		ET		E_HEATALARM	I
	profile point 1					4	6	mm	RET		E_SHTPROFPNT100	R
	walthickness		setpoint maximum minimum		SP				RET		E_SHTPROFWALLSP	
			average positive tolerance negative tolerance		AC				RET		E_SHTPROFWALLMAX E_SHTPROFWALLMIN	
	width		setpoint maximum minimum		SP		5		RET		E_SHTPROFWALLP0 E_SHTPROFWALLN0	
			average positive tolerance negative tolerance		AC	2	6		RET		E_SHTPROFWIDTHSP E_SHTPROFWIDTHMAX E_SHTPROFWIDTHMIN	
	correctionfactor		alarm	coupled covering material	SP	3	4		RET		E_SHTPROFWIDTHP0 E_SHTPROFWIDTHN0	
	alarms		alarm	B0: out of tolerance B0: no measuring B1: pulling control limit B2: min/max limit	AC		5		RRW ET		E_SHTPROFCORR E_SHTPROFCORRALA E_SHTPROFALARM	I

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARIABLE	SQL_TYPE
VAR(30)	VAR(40)	VAR(30)	VAR(30)	LONG VARCHAR	VAR(2)			VAR(10)	VAR(5)	VAR(2)	VAR(16)	VAR(1)
		status										
	Haul-Off	temperature zone 1		B0: filter active B1: measuring on/off B2: centering on/off B3: pulling control on/off temperature	SP	1	4 °C/F		RW		E_HOFFTZ1SP	R
		temperature zone 2			AC				RET		E_HOFFTZ1AC	
		temperature zone 3			AC				RET		E_HOFFTZ2SP	
		temperature zone 4			SP				RET		E_HOFFTZ2AC	
		temperature zone 5			AC				RET		E_HOFFTZ3SP	
		motor			SP				RET		E_HOFFTZ3AC	
					AC				RET		E_HOFFTZ4SP	
					AC				RET		E_HOFFTZ4AC	
					SP				RET		E_HOFFTZ5SP	
					AC	2	5 m/min		RET		E_HOFFTZ5AC	
				speed							E_HOFFMOTSPEED	
				current				A			E_HOFFMOTCUR	
				pulling force				N			E_HOFFMOTFOR	
			alarms	B0: motor overload B1: drive fault					ET		E_HOFFMOTALARM	
		film tension 1									E_HOFFTENS1	S
		film tension 2									E_HOFFTENS2	
		status									E_HOFFSTATUS	I
	Blade Cutting Unit										E_BLDSTATUS	
		cut length numbers						mm			E_BLDLENGTH	S
				scrap or test pieces since reset					RET		E_BLDNUMSCRAP	I
				good pieces since reset							E_BLDNUMGOOD	
		alarm motors		length since reset				m			E_BLDNUMRES	
				B0: unit fault					ET		E_BLDALARM	S
	Saw Cutting Unit		saw	speed				min -1			E_FSCUTMOTSPD	
				current					RW		E_FSCUTMOTCUR	
				speed				A	RET		E_FSCUTMOTPDAC	
			cross run	speed				min -1			E_FSCUTCRSSPD	
				current				A	RET		E_FSCUTCRSSPDAC	
		cut length lengthwise cutting						mm			E_FSCUTLENGTH	
				position of blade 1					RW		E_FSCUTPOSBLADE1	S
				position of blade 2							E_FSCUTPOSBLADE2	
				position of blade 3							E_FSCUTPOSBLADE3	
				position of blade 4							E_FSCUTPOSBLADE4	
				position of blade 5							E_FSCUTPOSBLADE5	

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	SMALLINT	NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	NUMSCALE	SMALLINT	NUMPRECS	VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
		alarms		position of blade 6 B0: saw overload B1: saw drive fault B2: crossrun overload B3: crossrun drive fault B4: crossrun overstroke B5: longitudinal overstroke B6: exhauster motor fault B0: manual B1: automatic	AC				ET		E_FSCUTPOSBLADE6 E_FSCUTALARM	I	
		status		scrap or test pieces since reset good pieces since reset meters since reset						RET		E_FSCUTSTATUS	
		numbers										E_FSCUTNUMSCRAP E_FSCUTNUMPCSRES E_FSCUTNUMMETRES	
Pipes	Calibrator - Cooling Tanks	temperatures		inlet water water tank1 water tank2 water tank3 water tank4 water tank5 water tank6		1	3	°C/F				E_TNKTEMPINLET E_TNKTEMPWAT1SP E_TNKTEMPWAT1AC E_TNKTEMPWAT2SP E_TNKTEMPWAT2AC E_TNKTEMPWAT3SP E_TNKTEMPWAT3AC E_TNKTEMPWAT4SP E_TNKTEMPWAT4AC E_TNKTEMPWAT5SP E_TNKTEMPWAT5AC E_TNKTEMPWAT6SP E_TNKTEMPWAT6AC	R S
		vacuum		vacuum 1 vacuum 2				mbar				E_TNKVAC1SP E_TNKVAC1AC E_TNKVAC2SP E_TNKVAC2AC	
		positions		distance from die				mm				E_TNKPOSDIESP E_TNKPOSDIEAC	
		alarms		B0: inlet water temp high B1: inlet water temp low B2: pres sprayer 1 low B3: res sprayer 2low B4: pres sprayer 1 low B5: res sprayer 2 low								E_TNKALARM	I
	ThicknessMeasurement	profile point 1 profile point 360 wallthickness	setpoint			4	6	mm		RET		E_PIPEPROF1 E_PIPEPROF360 E_THICKSP	R
						3	5			RW			

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARIABLE	SQL_TYPE
VAR(30)	VAR(40)	VAR(30)	VAR(30)	LONG	VAR(2)	SMALLINT	SMALLINT	VAR(10)	VAR(5)	VAR(2)	VAR(16)	VAR(1)
			maximum		AC				RET		E_THCKMAX	
			minimum								E_THCKMIN	
			average		SP	4			RW		E_THCKAVE	
			positive tolerance		AC	5			RET		E_THCKPOSTOL	
			negative tolerance		SP	4			RW		E_THCKEXCAC	
		excentricity	tolerance		AC	2	6		RET		E_THCKDIASP	
		diameter	setpoint								E_THCKDIAMIN	
			maximum								E_THCKDIAMAX	
			minimum								E_THCKDIAAVE	
			average		SP	3	4		RW		E_THCKDIAPOSTOL	
			positive tolerance								E_THCKDIAPOSTOL	
			negative tolerance		AC				ET		E_THCKDIAALARM	
		alarm	alarm	B0: out of tolerance B0: no measuring B1: pulling control limit B2: min/max limit B0: filter active B1: measuring on/off B2: centering on/off B3: pulling control on/off					RET		E_THCKALARM	
		status									E_THCKSTATUS	
Haul - Off Belts		motor	speed		SP	3	5	m/min	RW		E_HOFFBMOTSPD	R
			current		AC				RET		E_HOFFBMOTSPD	
		dimension	pipe diameter		SP			A	RW		E_HOFFBMOTCUR	S
		pressures	pressure 1					mm			E_HOFFBDIASP	
			pressure 2					bar			E_HOFFBPRES1SP	
		forces	pulling force		AC				RET		E_HOFFBPRES1AC	
		length	number of meters since reset		SP				RW		E_HOFFBPRES2SP	
		alarms	B0: motor overload B1: drive fault		AC	1	6	N	RET		E_HOFFBPRES2AC	R
		status	B2: line underpressure B0: Clamping jaw open/closed B1: on/off					m	ET		E_HOFFBPULLFORCE	I
Saw Cutting Unit		motor	blade speed								E_HOFFBALARM	
		numbers	planetary		SP			min -1	RET		E_HOFFBSTATUS	S
			rotation speed		AC				RW		E_PIPESAWBLSPD	
			number of scrap pieces		SP			1/s	RW		E_PIPESAWROTSPD	
			number of good pieces		AC				RET		E_PIPESAWNUMSCRIP	I
											E_PIPESAWNUMGOOD	

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT	SMALLINT	VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
				vacuum 3	AC				RET		E_CALI1VAC2AC	
				vacuum 4	SP				RW		E_CALI1VAC3SP	
				alarms	AC				RET		E_CALI1VAC3AC	
				B0: pump 1 fault	SP				RW		E_CALI1VAC4SP	
				B1: pump 2 fault	AC				RET		E_CALI1VAC4AC	
				B2: pump 3 fault	SP				ET		E_CALI1ALARM	
				B3: pump 4 fault	AC							
				B4: pump 5 fault	AC							
				B5: pump 6 fault	AC							
				B6: vacuum 1 alarm	AC							
				B7: vacuum 2 alarm	AC							
				B8 vacuum 3 alarm	AC							
				B9: vacuum 4 alarm	AC							
				vacuum 1	SP			mbar	RW		E_CALI2VAC1SP	
				distributors	AC				RET		E_CALI2VAC1AC	
				vacuum 2	SP				RW		E_CALI2VAC2SP	
				vacuum 3	AC				RET		E_CALI2VAC2AC	
				vacuum 4	AC				RW		E_CALI2VAC3SP	
				calibrator 2	SP				RET		E_CALI2VAC3AC	
				alarms	AC				RW		E_CALI2VAC4SP	
				B0: pump 1 fault	AC				RET		E_CALI2VAC4AC	
				B1: pump 2 fault	AC				ET		E_CALI2ALARM	
				B2: pump 3 fault	AC							
				B3: pump 4 fault	AC							
				B4: pump 5 fault	AC							
				B5: pump 6 fault	AC							
				B6: vacuum 1 alarm	AC							
				B7: vacuum 2 alarm	AC							
				B8 vacuum 3 alarm	AC							
				B9: vacuum 4 alarm	AC							
				vacuum 1	SP			mbar	RW		E_CALI3VAC1SP	
				distributors	AC				RET		E_CALI3VAC1AC	
				vacuum 2	SP				RW		E_CALI3VAC2SP	
				vacuum 3	AC				RET		E_CALI3VAC2AC	
				vacuum 4	AC				RW		E_CALI3VAC3SP	
				calibrator 3	AC				RET		E_CALI3VAC3AC	
				distributors	SP				RW		E_CALI3VAC4SP	
				vacuum 1	AC				RET		E_CALI3VAC4AC	
				vacuum 2	AC							
				vacuum 3	SP							
				vacuum 4	SP							
				vacuum 4	AC							

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE		
VAR	CHAR(30)	VAR	CHAR(40)	VAR	CHAR(30)	VAR	CHAR(30)	LONG	VAR	CHAR(10)	VAR	CHAR(16)	VAR	CHAR(1)
				alarms					ET		E_CALI3ALARM			
				B0: pump 1 fault B1: pump 2 fault B2: pump 3 fault B3: pump 4 fault B4: pump 5 fault B5: pump 6 fault B6: vacuum 1 alarm B7: vacuum 2 alarm B8 vacuum 3 alarm B9: vacuum 4 alarm										
		calibrator 4	distributors	vacuum 1	SP			mbar	RW		E_CALI4VAC1SP	S		
				vacuum 2	AC				RET		E_CALI4VAC1AC			
				vacuum 3	SP				RW		E_CALI4VAC2SP			
				vacuum 4	AC				RW		E_CALI4VAC2AC			
					SP				RW		E_CALI4VAC3SP			
					AC				RET		E_CALI4VAC3AC			
					SP				RW		E_CALI4VAC4SP			
					AC				RET		E_CALI4VAC4AC			
					ET				ET		E_CALI4ALARM	I		
				alarms										
				B0: pump 1 fault B1: pump 2 fault B2: pump 3 fault B3: pump 4 fault B4: pump 5 fault B5: pump 6 fault B6: vacuum 1 alarm B7: vacuum 2 alarm B8 vacuum 3 alarm B9: vacuum 4 alarm										
				distance from die	SP				RW		E_CALIPOS1SP	S		
					AC				RET		E_CALIPOS1EAC			
					ET				ET		E_CALI1ALARM	I		
				B0: inlet water temp high B1: inlet water temp low										
				speed	SP	3	5	mm/min	RW		E_PRFHOFSPD	R		
					AC				RET		E_PRFHOFSPDAC			
				current	SP			A	RW		E_PRFHOF4CUR	S		
				driving belt pressure	AC			bar	RET		E_PRFHOFPPRES			
				pulling force	SP	1	6	N	RW		E_PRFHOFPPRESAC	R		
				number of meters since reset	AC			m	RET		E_PRFHOFFFORCE	I		
				pieces length							E_PRFHOFMETRES	R		
				scrap or test pieces		3	5				E_PRFHOFPCGRES	R		
											E_PRFHOFNUMSCRIP	I		

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARIABLE	SQLTYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT	SMALLINT	VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
				good pieces B0: motor overload B1: drive fault B2: line underpressure B0: clamping jaw open/closed B1: on/off blade speed rotation speed					ET		E_PRHFNUMGOOD E_PRHFFALARM	
	Saw Cutting Unit		planetary						RET		E_PRHFFSTATUS	S
								min -1	RW		E_PROFSAWBLD1SP	
								1/s	RET		E_PROFSAWBLD1AC	
								6 m	RW		E_PROFSAWWROTSPD	R
									RET		E_PROFSAWL1SP	
									RW		E_PROFSAWL1AC	
									RET		E_PROFSAWL2SP	
									RW		E_PROFSAWL2AC	
									RET		E_PROFSAWL3SP	
									RW		E_PROFSAWL3AC	
									RET		E_PROFSAWL4SP	
									RW		E_PROFSAWL4AC	
									RET		E_PROFSAWBUF1	I
									RW		E_PROFSAWBUF100	
									RET		E_PROFSAWHAND	
									RW		E_PROFSAWALARM	
									ET			
Rubber for tyre industry	Tread Line		speed	B0: blade motor overload B1: cycle fail B2: no saw cutting B3: saw in endposition	SP	2	4	m/min	RW		E_TRTAKESPDSP	R
									RET		E_TRTAKESPDAC	
				positive Tolerance negative Tolerance	AC SP			m/min	RET RW		E_TRTAKESPDSTOL E_TRTAKESPDNGTOL	S
			current						RET		E_TRTAKECURSP	
				positive Tolerance negative Tolerance	AC SP	1	3	A	RET RW		E_TRTAKECURAC	
			speed						RET		E_TRTAKECURPSTOL E_TRTAKECURNGTOL	
	Shrinkage								RET		E_TRSHRSPDSP	
				positive Tolerance negative Tolerance	AC SP	2	4	m/min	RET RW		E_TRSHRSPDAC E_TRSHRSPDPSTOL E_TRSHRSPDNGTOL	
			current						RET		E_TRSHRSPDNEGTOL	
				positive Tolerance negative Tolerance	AC SP	1	3	A	RET RW		E_TRSHRSPDSTOL E_TRSHRSPDNEGTOL	
				positive Tolerance negative Tolerance	AC SP				RET RW		E_TRSHRCURAC E_TRSHRCURPSTOL E_TRSHRCURNEGTOL	

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	SMALLINT NUMSCALE	SMALLINT NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE		
VAR	CHAR(30)	VAR	CHAR(40)	VAR	CHAR(30)	VAR	CHAR(30)	LONG	VAR	CHAR(10)	VAR	CHAR(16)	VAR	CHAR(1)
		scale			AC	2			RET		E_TRSHRSHRINK			
		shrinkage			SP		%		RW		E_TRSCLSPDSP			
		speed			AC	1	4 m/min		RET		E_TRSCLSPDAC			
		current			SP	1	3 A		RW		E_TRSCLCURSP			
		weight			AC	3	5 g		RET		E_TRSCLCURAC			
					SP				RW		E_TRSCLWGSP			
					AC				RET		E_TRSCLWGAC			
				positive warm tolerance	SP		g%		RW		E_TRSCLPOSINTOL			
				positive stop tolerance							E_TRSCLPOSSTPTOL			
				negative warm tolerance							E_TRSCLNEGINTOL			
				negative stop tolerance							E_TRSCLNEGSTPTOL			
				position							E_TRSCLROLPOS			
				material tension	AC	0	3 %		RET		E_TRSCLTENSION			
		calander			SP	1	bar		RW		E_TRCALSPDSP			
		speed			AC	2	4 m/min		RET		E_TRCALSPDAC			
		current			SP	1	3 A		RW		E_TRCALCURSP			
					AC				RET		E_TRCALCURAC			
				positive tolerance	SP		mm		RW		E_TRCALLG			
				negative tolerance							E_TRCALLGPOSTOL			
					AC				RET		E_TRCALLGPNEGTOL			
					SP				RW		E_TRCALRG			
				positive tolerance							E_TRCALRGPPOSTOL			
				negative tolerance							E_TRCALRGPNEGSTOL			
		cooling			AC	2	4 m/min		RET		E_TRCOLSPDSP			
		speed			SP		m/min		RW		E_TRCOLSPDAC			
				positive Tolerance							E_TRCOLSPDPOSTOL			
				negative Tolerance							E_TRCOLSPDNEGSTOL			
					AC	1	3 A		RET		E_TRCOLCURSP			
				positive Tolerance							E_TRCOLCURAC			
				negative Tolerance							E_TRCOLCURPOSTOL			
					AC				RET		E_TRCOLCURNEGSTOL			
		skiver			SP		5 mm		RW		E_TRSKVLNGSP			
		length			AC				RET		E_TRSKVLNAC			
		width			SP				RW		E_TRSKVWDSP			
					AC				RET		E_TRSKVWDAC			
		accelerator			SP	2	4 m/min		RW		E_TRACCCSPDSP			
		speed			AC		m/min		RET		E_TRACCCSPDAC			
				positive Tolerance							E_TRACCCSPDPOSTOL			
				negative Tolerance							E_TRACCCSPDNEGSTOL			
					AC	1	3 A		RET		E_TRACCCURSP			
											E_TRACCCURAC			

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRPT	VALTYPE	NUMSCALE	SMALLINT	NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT	SMALLINT		VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
		check weighing	speed	<i>positive Tolerance</i> <i>negative Tolerance</i>	SP					RW		E_TRACCCURPOSTOL E_TRACCCURNEGTO E_TRCHKWSPDSP E_TRCHKWSPDAP E_TRCHKWCURSP E_TRCHKWCURAC E_TRCHKWWTGSP E_TRCHKWWTGTAC E_TRCHKWPOSWRN E_TRCHKWPOSSTOP E_TRCHKWNEGWAR E_TRCHKWNEGSTOP E_TRCHKWDANCROL E_TRCHKWNTENSION E_TRDECSPDSP E_TRDECRSPDAP E_TRDECSPDPOSTOL E_TRDECSPDNEGTO E_TRDECCURSP E_TRDECCURAC E_TRDECCURPOSTOL E_TRDECCURNEGTO E_TRBOOKPIECES E_SWTAKESPDSP E_SWTAKESPDAP E_SWTAKESPDPOSTOL E_SWTAKESPDNGTO E_SWTAKECURSP E_SWTAKECURAC E_SWTAKECURPOSTOL E_SWTAKECURNEGTO E_SWSHRSPDSP E_SWSHRSPDAP E_SWSHRSPDPOSTOL E_SWSHRSPDNEGTO E_SWSHRCURSP E_SWSHRCURAC E_SWSHRCURPOSTOL E_SWSHRCURNEGTO E_SWSHRSHRINK E_SWSCLSPDSP	
			speed	<i>positive Tolerance</i> <i>negative Tolerance</i>	AC	2	4	m/min					
			current		SP	1	3	A		RET			
			weight		AC	3	5	g		RW			
			dancer roll	<i>positive warm tolerance</i> <i>positive stop tolerance</i> <i>negative warm tolerance</i> <i>negative stop tolerance</i>	SP	0	3	%		RET			
			speed	<i>position</i> <i>material tension</i>	AC	1	4	m/min	bar	RW			
		deceleration	speed	<i>positive Tolerance</i> <i>negative Tolerance</i>	SP	2	4	m/min	m/min	RET			
			current		AC	1	3	A		RET			
			pieces	<i>positive Tolerance</i> <i>negative Tolerance</i>	SP	0	2	1		RW			
		booking device take away	speed	<i>positive Tolerance</i> <i>negative Tolerance</i>	AC	2	4	m/min	m/min	RET			
			current		SP	1	3	A		RW			
			speed	<i>positive Tolerance</i> <i>negative Tolerance</i>	AC	2	4	m/min		RET			
		Shrinkage	current	<i>positive Tolerance</i> <i>negative Tolerance</i>	SP	1	3	A		RW			
			shrinkage speed	<i>positive Tolerance</i> <i>negative Tolerance</i>	AC	2	4	m/min	%	RET			
		scale	speed		SP	2	4	m/min		RW			

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	SMALLINT	NUMPRECS	UNIT	SERVICE	COMAPPL	VARIABLE	SQL_TYPE
VARCHAR(30)	VARCHAR(40)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT	SMALLINT		VARCHAR(16)	VARCHAR(9)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
			current		AC	1	3			RET		E_SWSCLESPDAC	
			weight		SP	3	5			RW		E_SWSCLECURSP	
				positive warm tolerance	AC					RET		E_SWSCLECURAC	
				positive stop tolerance	SP					RW		E_SWSCLEWGSP	
				negative warm tolerance	AC					RET		E_SWSCLEWGAC	
				negative stop tolerance	SP					RW		E_SWSCLEPOS	
			dancer roll	position	AC	0	3			RET		E_SWSCLEPOSTTOL	
			speed	material tension	SP	1	4			RW		E_SWSCLEPOSTTOL	
					AC	2	4			RET		E_SWSCLEPOSTTOL	
		calander	current		SP	1	3			RET		E_SWSCLEPOSTTOL	
			left gap		AC					RW		E_SWSCLEPOSTTOL	
			right gap	positive tolerance	SP					RET		E_SWSCLEPOSTTOL	
				negative tolerance	AC					RW		E_SWSCLEPOSTTOL	
			speed	positive tolerance	SP					RET		E_SWSCLEPOSTTOL	
		cooling	current	negative tolerance	AC	2	4			RW		E_SWSCLEPOSTTOL	
					SP					RET		E_SWSCLEPOSTTOL	
				positive Tolerance	AC	1	3			RW		E_SWSCLEPOSTTOL	
				negative Tolerance	SP					RET		E_SWSCLEPOSTTOL	
		cross cutter winder	length		AC					RW		E_SWSCLEPOSTTOL	
			tension	total length per reel	SP	0	2			RET		E_SWSCLEPOSTTOL	
			number of reels		AC					RW		E_SWSCLEPOSTTOL	
		take away	speed		SP	2	4			RET		E_SWSCLEPOSTTOL	
				positive Tolerance	AC	1	3			RW		E_SWSCLEPOSTTOL	
			current	negative Tolerance	SP					RET		E_SWSCLEPOSTTOL	
					AC					RW		E_SWSCLEPOSTTOL	

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	NUMPRECS	UNIT	SERVICE	COMAPPL	VARIABLE	SQL_TYPE
	VARCHAR(30)	VARCHAR(30)	VARCHAR(30)	LONG VARCHAR	VARCHAR(2)	SMALLINT	SMALLINT	VARCHAR(10)	VARCHAR(5)	VARCHAR(2)	VARCHAR(16)	VARCHAR(1)
		Shrinkage	speed	positive Tolerance negative Tolerance	SP	2	4	m/min	RW		E_APTAKECURPSTOL E_APTAKECURNGTOL E_APSHRSPDSP E_APSHRSPDAC E_APSHRSPDPSTOL E_APSHRSPDNEGTL E_APSHRCURSP E_APSHRCURAC E_APSHRCURPOSTOL E_APSHRCURNEGTL E_APSHRSHRINK E_APSCLSPDSP E_APSCLSPDAC E_APSCLCURSP E_APSCLCURAC E_APSCLWGSP E_APSCLWGAC E_APSCLPOSWRNTOL E_APSCLPOSSTPTOL E_APSCLNEGWRNTOL E_APSCLNEGSTPTOL E_APSCLROLPOS E_APSCLTENSION E_APCOLSPDSP E_APCOLRSPDAC E_APCOLSPDPSTOL E_APCOLSPDNEGTL E_APCOLCURSP E_APCOLCURAC E_APCOLCURPOSTOL E_APCOLCURNEGTL E_APSTORSPDSP E_APSTORSPDAC E_APSTORSPDPSTOL E_APSTORSPDNEGTL E_APSTORCURSP E_APSTORCURAC E_APSTORCURPSTOL E_APSTORCURNEGTL E_APBEADPIECES E_INTAKESPDSP	
			current	positive Tolerance negative Tolerance	AC SP	1	3	A	RET RW			
		scale	shrinkage speed	positive Tolerance negative Tolerance	AC SP AC SP AC SP AC SP	2	4	% m/min	RET RW RET RW RET RW RET RW			
			current	positive Tolerance negative Tolerance	AC SP	1	3	A	RET RW			
			weight	positive Tolerance negative Tolerance	AC SP	3	5	g	RET RW			
			dancer roll	positive Tolerance negative Tolerance	AC	0	3	%	RET			
		cooling	speed	material tension	SP AC AC SP	1 2	4	bar m/min m/min	RW RET RW			
			current	positive Tolerance negative Tolerance	AC SP	1	3	A	RET RW			
		storage device	speed	positive Tolerance negative Tolerance	AC SP	2	4	m/min m/min	RET RW			
			current	positive Tolerance negative Tolerance	AC SP	1	3	A	RET RW			
		bead setting device	pieces	positive Tolerance negative Tolerance	AC SP	0	1		RET RW			
	Inner Liner Line	take away	speed		SP	2	4	m/min	RET			

BASECLASS	SUBCLASS1	SUBCLASS2	SUBCLASS3	DESCRIPT	VALTYPE	NUMSCALE	SMALLINT	NUMPRECS	UNIT	SERVICE	COMAPPL	VARNAME	SQL_TYPE	
VAR	CHAR(30)	VAR	CHAR(40)	VAR	CHAR(30)	VAR	CHAR(30)	LONG	VAR	CHAR(10)	VAR	CHAR(16)	VAR	CHAR(1)
				positive Tolerance negative Tolerance	AC SP			m/min	RET RW			E_INTAKESPDAC E_INTAKESDPSTOL E_INTAKESPDNGTOL E_INTAKECURSP E_INTAKECURAC E_INTAKECURPSTOL E_INTAKECURNGTOL E_INCOLSPDSP E_INCOLRSPDAC E_INCOLSPDPOSTOL E_INCOLSPDNEGSTOL E_INCOLCURSP E_INCOLCURAC E_INCOLCURPOSTOL E_INCOLCURNEGSTOL E_INCOLCROSSLNGLTH E_INLNGLTH		
			current	positive Tolerance negative Tolerance	AC SP	1	3	A	RET RW					
		cooling	speed	positive Tolerance negative Tolerance	AC SP	2	4	m/min m/min	RET RW					
			current	positive Tolerance negative Tolerance	AC SP	1	3	A	RET RW					
	cross cutter winder		length tension	positive Tolerance negative Tolerance total length per reel	AC SP	0		m Nm	RET RW					
			number of reels		AC SP AC				RET 1 RW RET					
Granulating	Die Cutting Unit	speeds	blade		SP			min -1	RW			E_GRANBLDPSDSP E_GRANBLDPSDAC	S	
		temperatures pressures alarms	water		AC			°C/°F bar	RET			E_GRANWATTEMP E_GRANWATPRES E_GRANALARM		
		status	B0: blade motor overload B1: drive fault B2: cooling water temp high B3: cooling water temp low B0: head open/close B1: on/off						ET				I	
					RET							E_GRANSTATUS		
EOF	EOF	EOF	EOF	EOF	EOF	EOF	EOF	EOF	EOF	EOF	EOF	EOF	EOF	

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Europäisches Komitee der Hersteller von Kunststoff- und Gummi-
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European Committee of Machinery Manufacturers for the Plastics and
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Comité Européen des Constructeurs de Machines pour Plastiques et
Caoutchouc

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