

Product Information PI 52

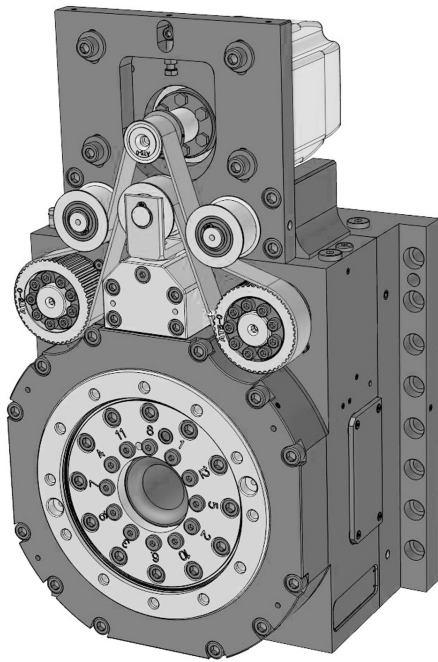
Rotary table

Series 0.9.320.xxx

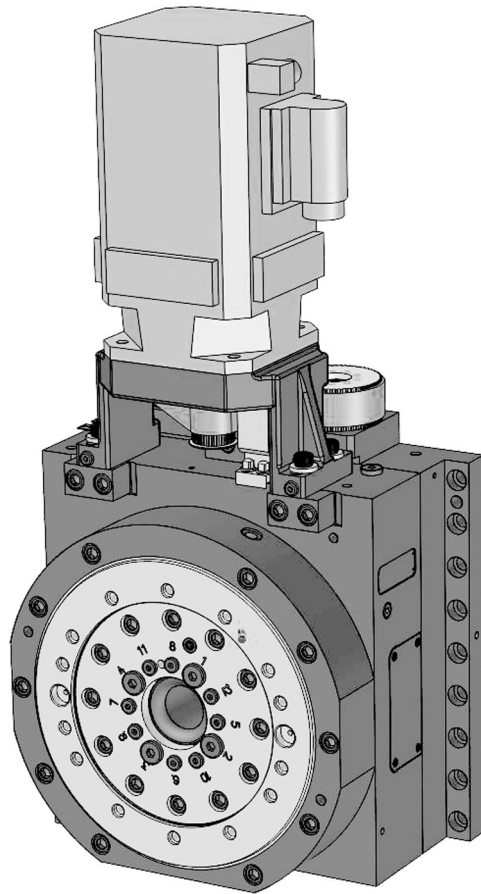
2016-11-28



Size 25



Size 32

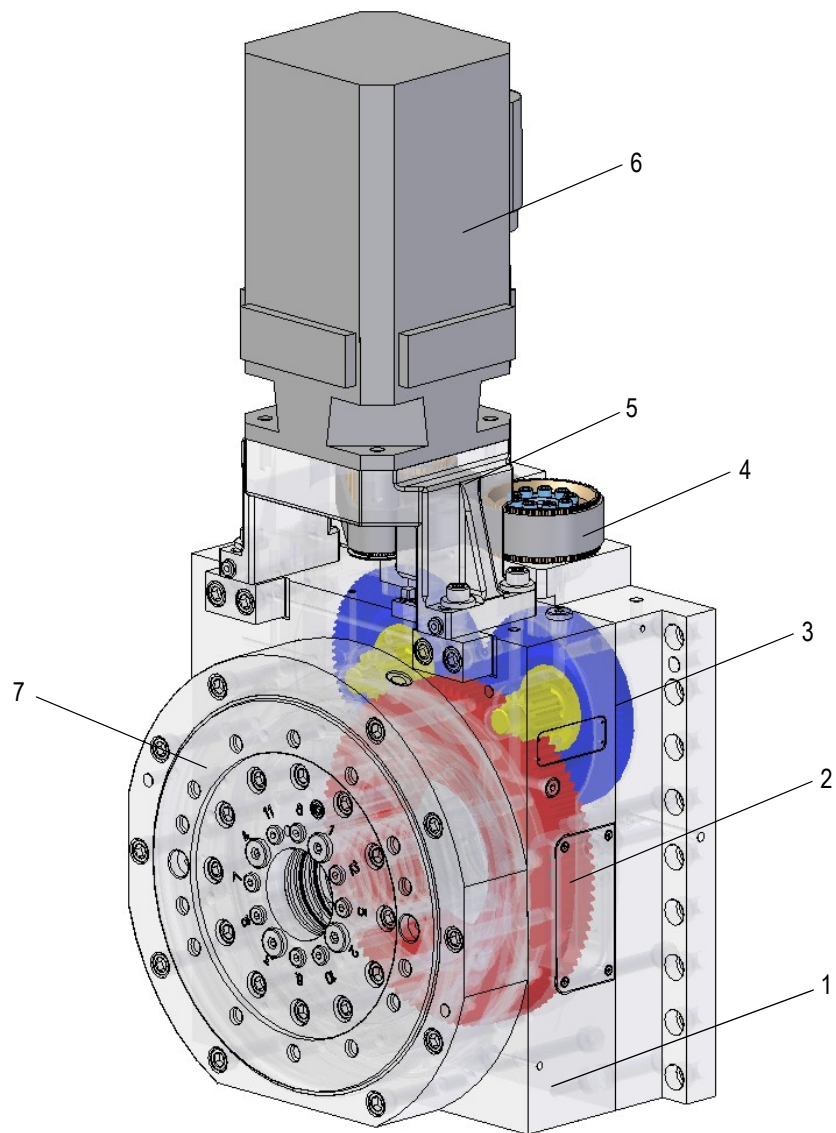


SAUTETR rotary tables are particularly suitable for machines which perform multi angle processing. They can be used in

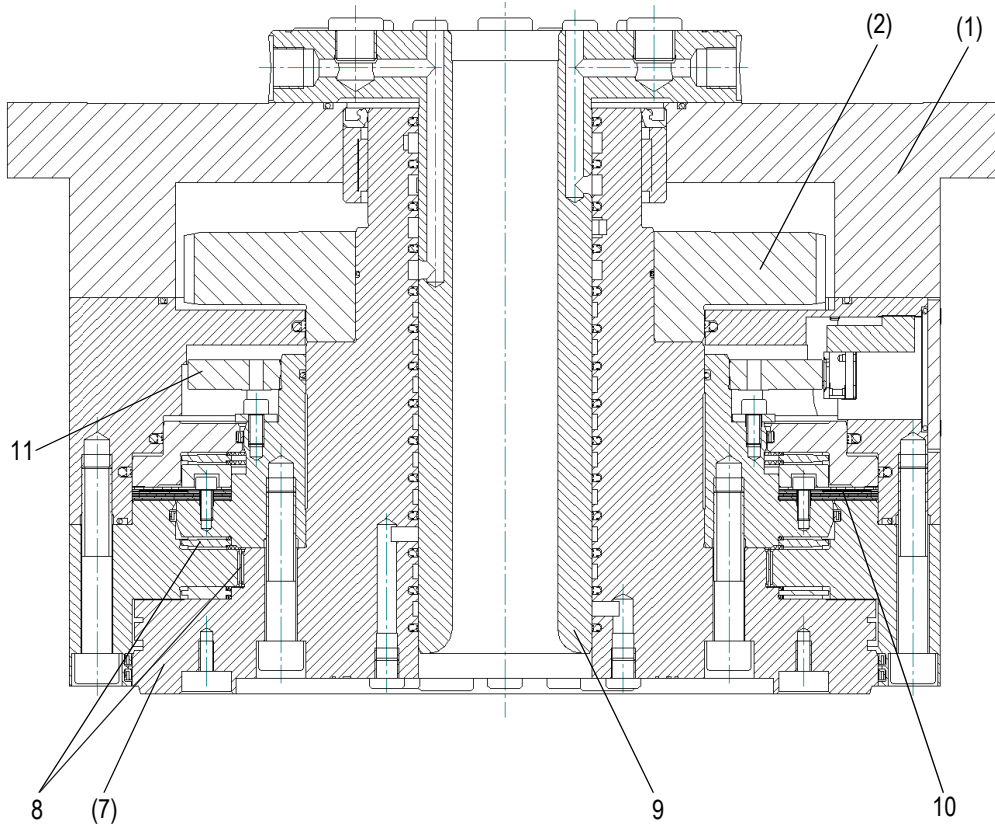
- Supporting base for the milling spindle
- Supporting base for the work piece

Feature:

- Swiveling:
 - Positioning to any desired angle within it's range
 - Zero-backlash by pre stressed gear train
 - Highest positioning accuracy trough fitted directly position measurement system
 - zero-backlash by pre stressed for high-precision via exact thrust rotational accuracy
 - Through the use of standard servomotors, the tables can be readily integrated into the machine control tool clamping:
- Clamping:
 - Clamping to any desired angle within it's range
 - Hydraulic clamping with multi-disk brake to discharge of gear and increase admissible static load
- Cuting:
 - Suitable for five-axis machining
 - Immunity to damage in the event of a collision
 - High clamping of torque and strong bearing, thus enable maximum cutting force
 - Reliability via sealing of the rotary table with air purge connection
 - Low maintenance due central lubrication
- Assembly into the machine:
 - Any installation position is possible
 - A twelve line rotary manifold system serves to transfer coolant, compressed air or hydraulic fluid to the working zone
 - Electrical leads are led through the hollow centershaft
 - Compact and space-saving design
- Optionen:
 - Other designs

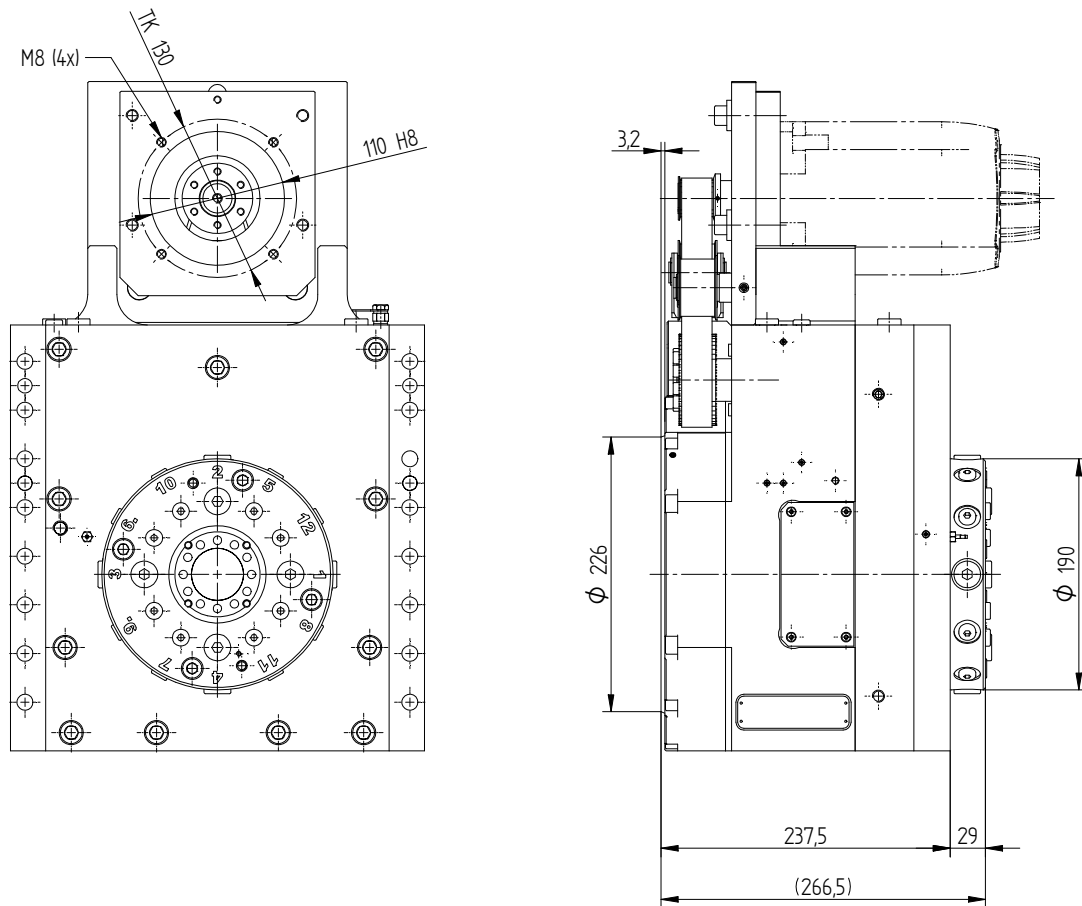


- 1 Housing
- 2 Central gear wheel
- 3 Gear
- 4 Belt drive
- 5 Pre-load
- 6 Drive motor
- 7 Locating disc

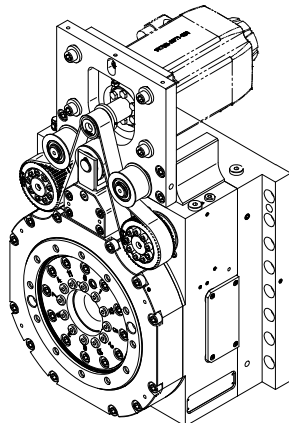
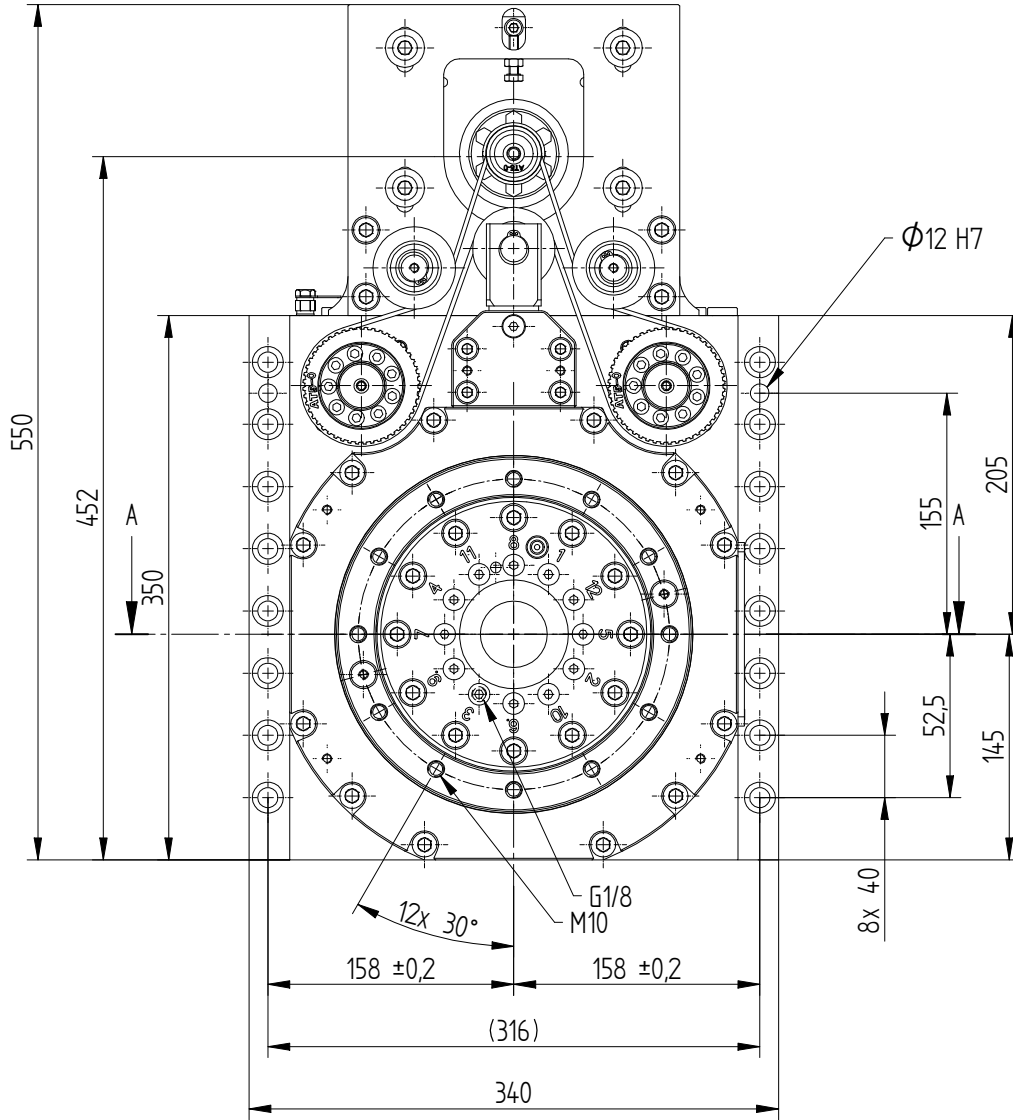


- 8 Prestressed bearing
- 9 Rotary manifold
- 10 Multi-disk brake
- 11 Angle encoder

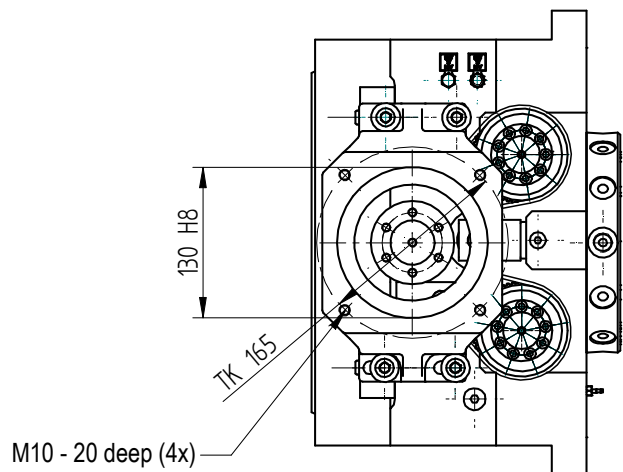
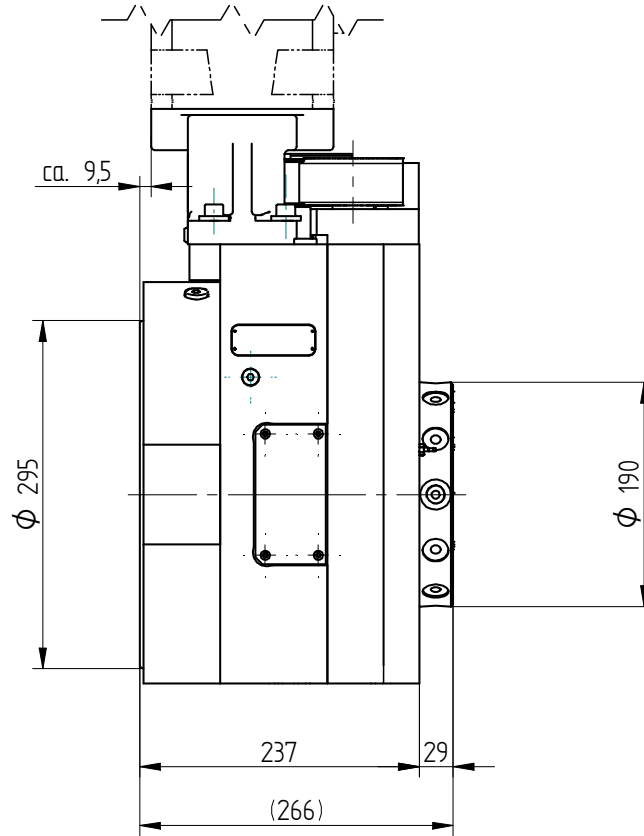
Size 25



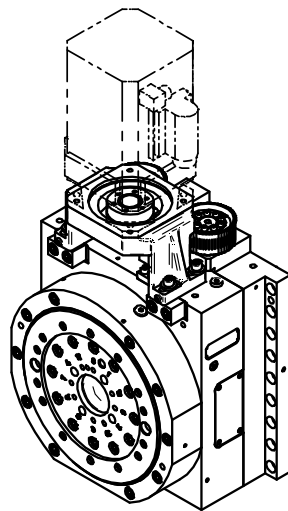
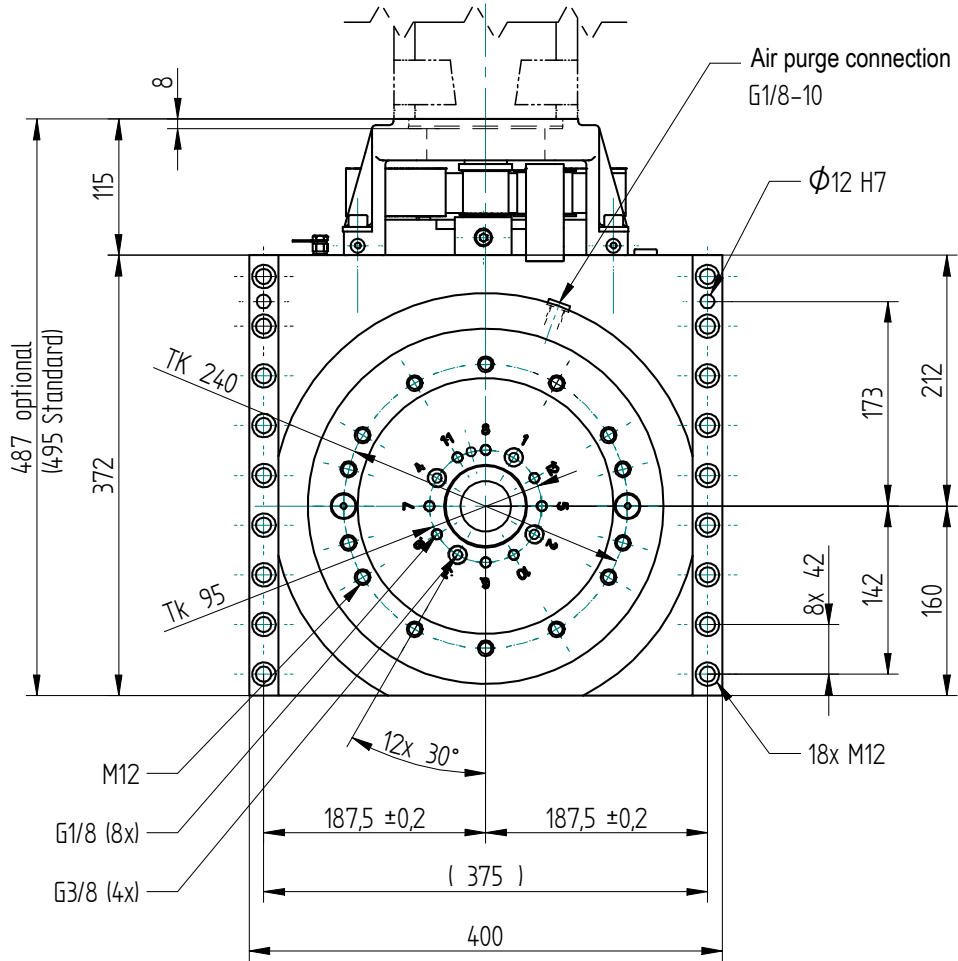
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Size 32

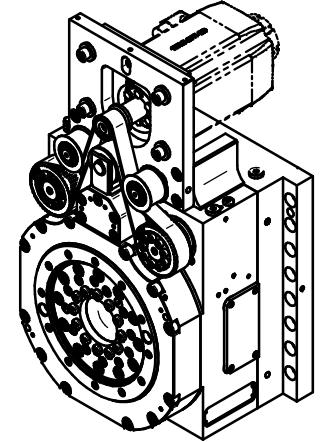
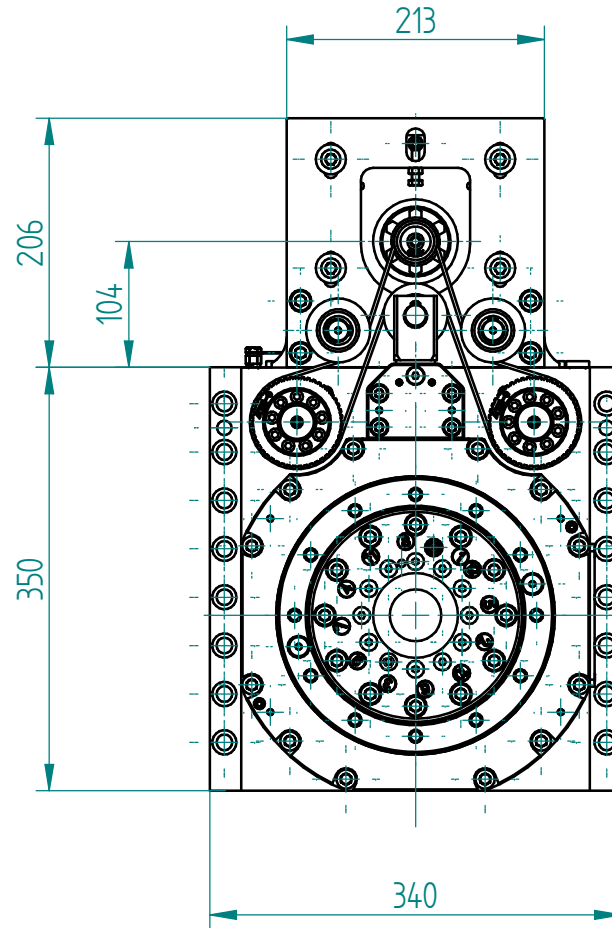
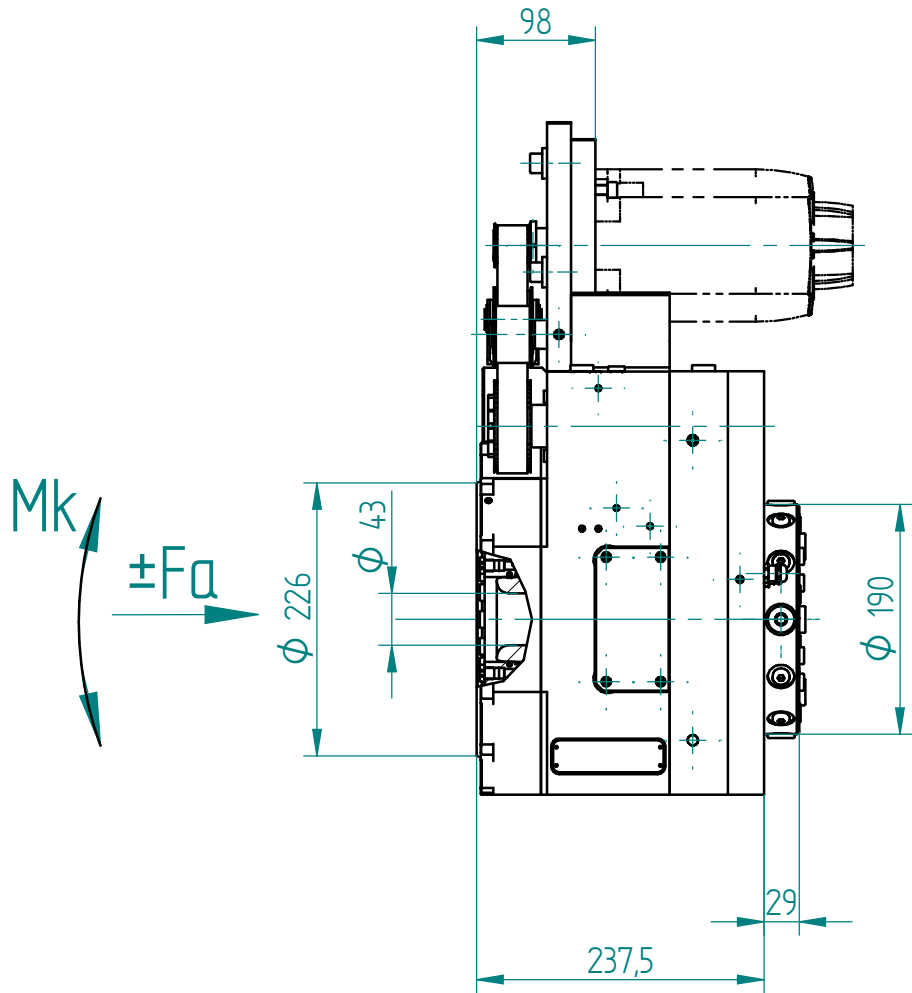


Size 32



Assignment of control plans

Rotary table	0.9.320.025	0.9.320.032
Data sheet	0.9.320.025-TY01	0.9.320.032-TY01
Wiring layouts	EPB-1350	EPB-1217
Hydraulic diagram	HP-570	HP-517
Pneumatic diagram	PP-046	PP-025
Diagram of function	SK-1644	SK-1553



Date Sheet

SAUTER Round-table

0.9.320.025-TY01

Technical data**Loads:**

(centric load)

	static	dynamic
± Fa	80 kN	40 kN
± Mk	3600 Nm	3600 Nm

Weight:

total weight (excluding motor & tooling)	approx. 170 kg
adm. Weight of the tooling	320 kg

Precision:

Measuring system

HEIDENHAIN
ERA 4480 C 16384'
distance coded - reference mark

Position precision

- no compensation	± 8"	≅ ± 0,04 / 1000 mm
- with compensation	± 2"	≅ ± 0,01 / 1000 mm
- with compensation with increase accuracy	± 1"	≅ ± 0,005 / 1000 mm

Drive data:

n _{max}	=	30 min-1
M _{max}	=	1200 Nm
i _{ges}	=	120

Motor SIEMENS 1FT7 083...
of flange compatible

M _{motor}	=	10 Nm limited
n _{Motor}	=	3000 min-1 limited

Hydraulic data:

Pressure ± 10%	=	40 bar
Clamping torque	=	2500 Nm

Airpurge = 0,5 bar

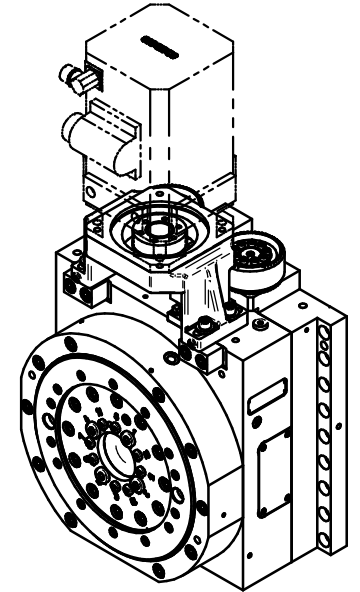
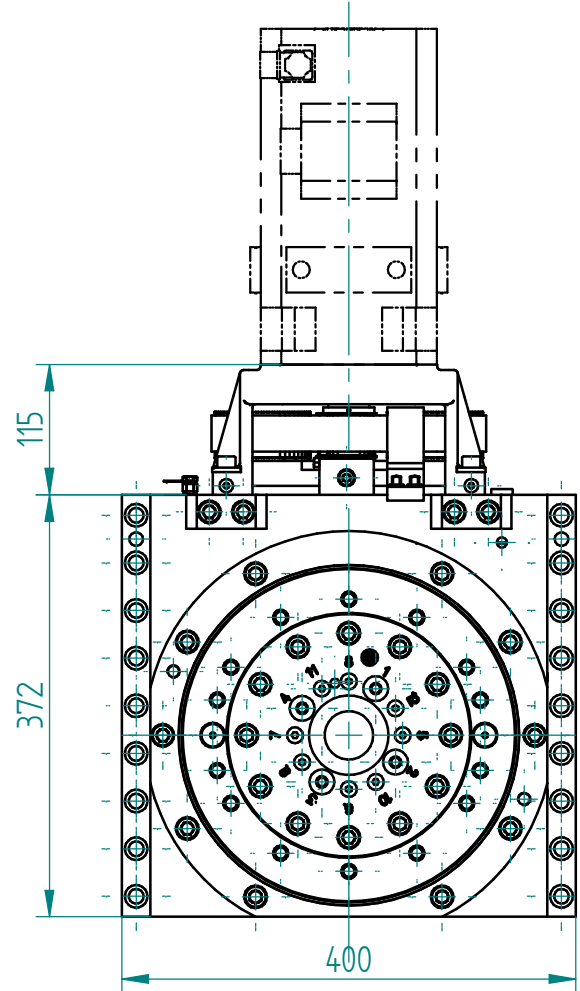
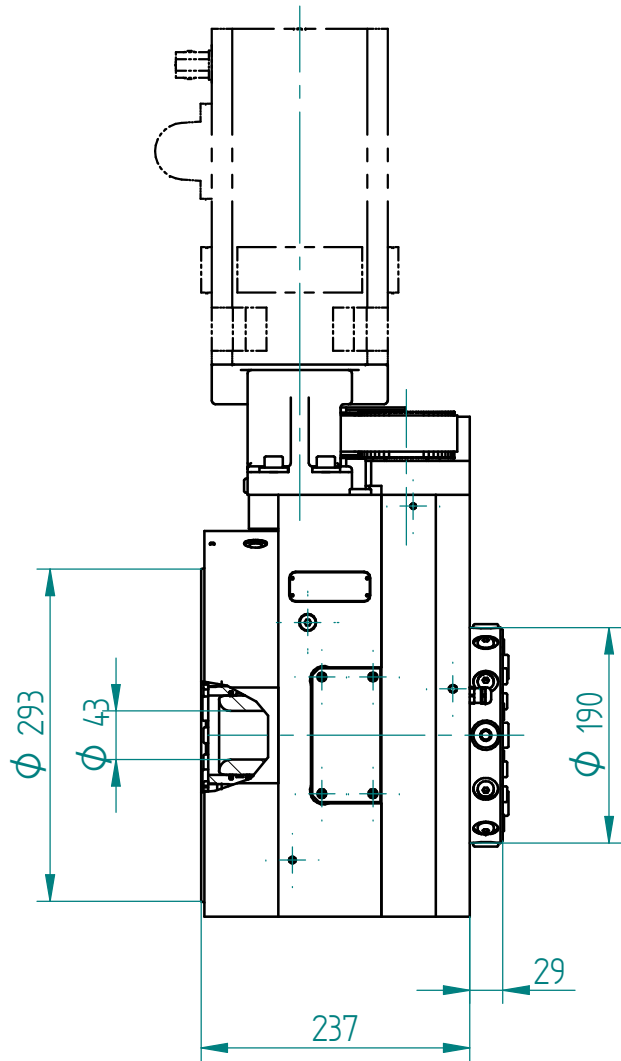
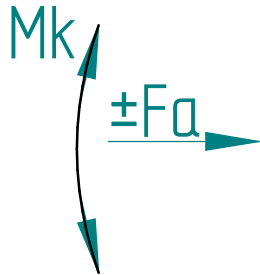
Central lubrication connector = Oil

Rotating union: 12 fold uncontrolled Nominal Size Ø6

suitable for		
Hydraulic-Oil	≤	150 bar
Coolant	≤	150 bar
Compressed air	≤	8 bar



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www.sauter-feinmechanik.com



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Data Sheet

SAUTER Round-table

0.9.320.032-TY01

Technical data**Loads:**

(centric load)

	static	dynamic
± Fa	100 kN	50 kN
± Mk	7500 Nm	7500 Nm

Weight:

total weight (excluding motor & tooling)	approx. 200 kg
adm. Weight of the tooling	400 kg

Precision:

Measuring system

HEIDENHAIN
ECA 4402
27 bit

Position precision

- no compensation	± 8" \triangleq	± 0,04 / 1000 mm
- with compensation	± 2" \triangleq	± 0,01 / 1000 mm
- with compensation with increase accuracy	± 1" \triangleq	± 0,005 / 1000 mm

Drive data:

n _{max}	=	30 min-1
M _{max}	=	2400 Nm
i _{ges}	=	120

Motor SIEMENS 1FT6 08...
of flange compatible

M _{motor}	=	20 Nm limited
n _{Motor}	=	3600 min-1 limited

Hydraulic data:

Pressure ± 10%	=	40 bar
Clamping torque	=	4200 Nm

Airpurge = 0,5 bar

Central lubrication connector = Oil

Rotating union: 12 fold uncontrolled Nominal Size Ø6

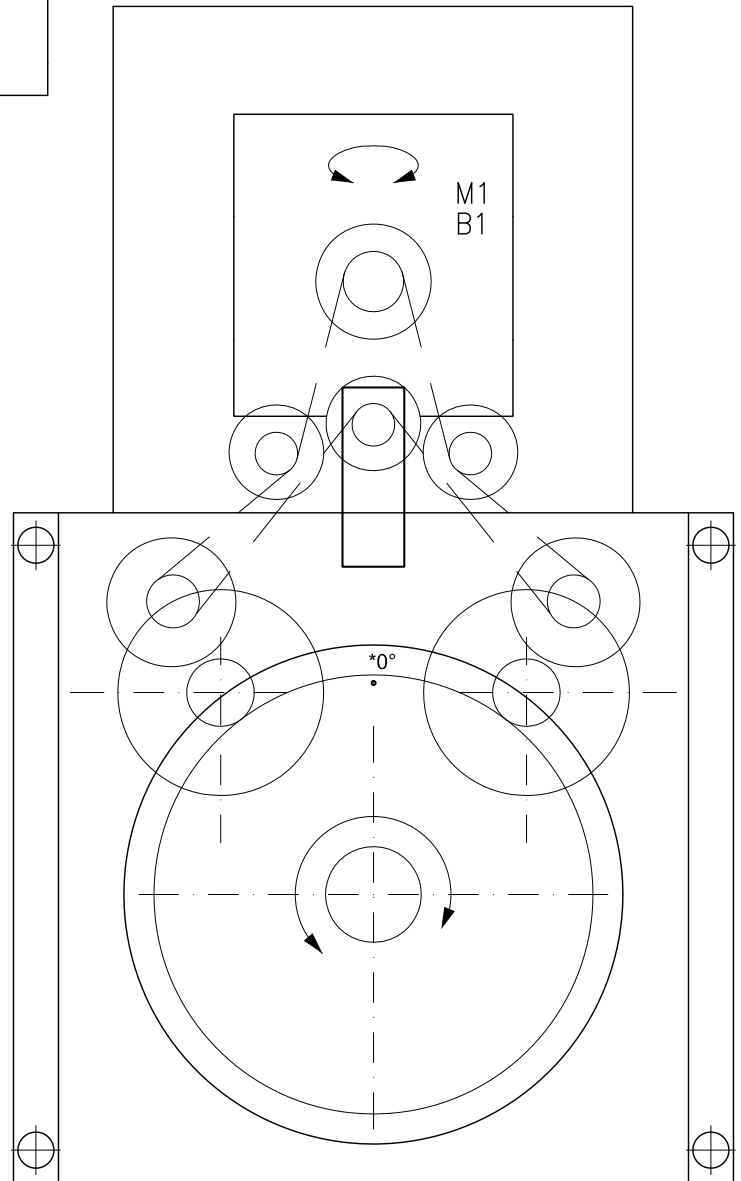
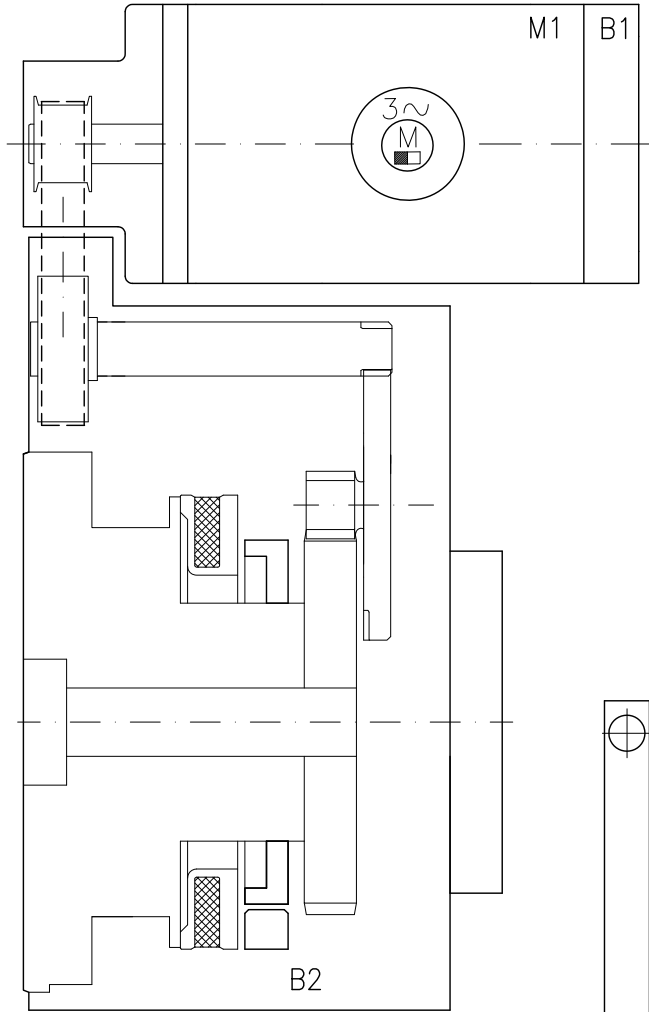
suitable for

Hydraulic-Oil	≤	150 bar
Coolant	≤	150 bar
Compressed air	≤	8 bar

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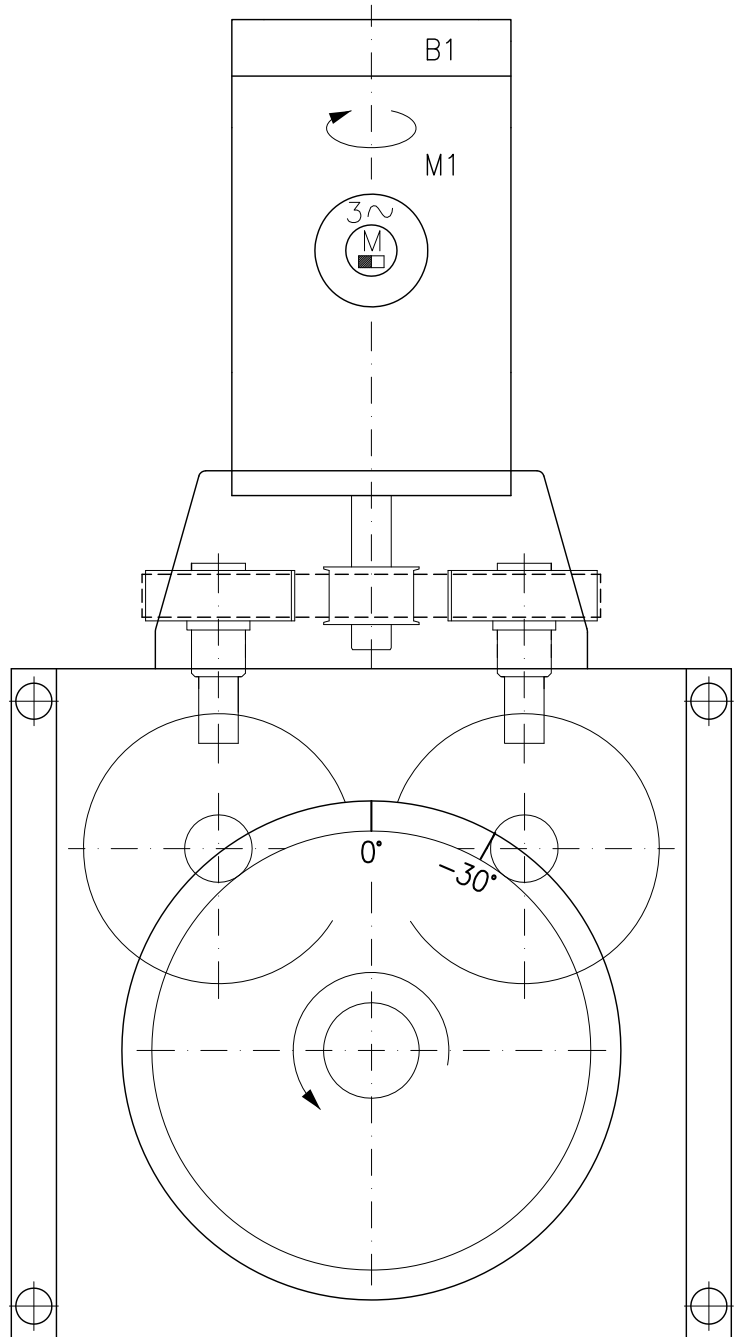
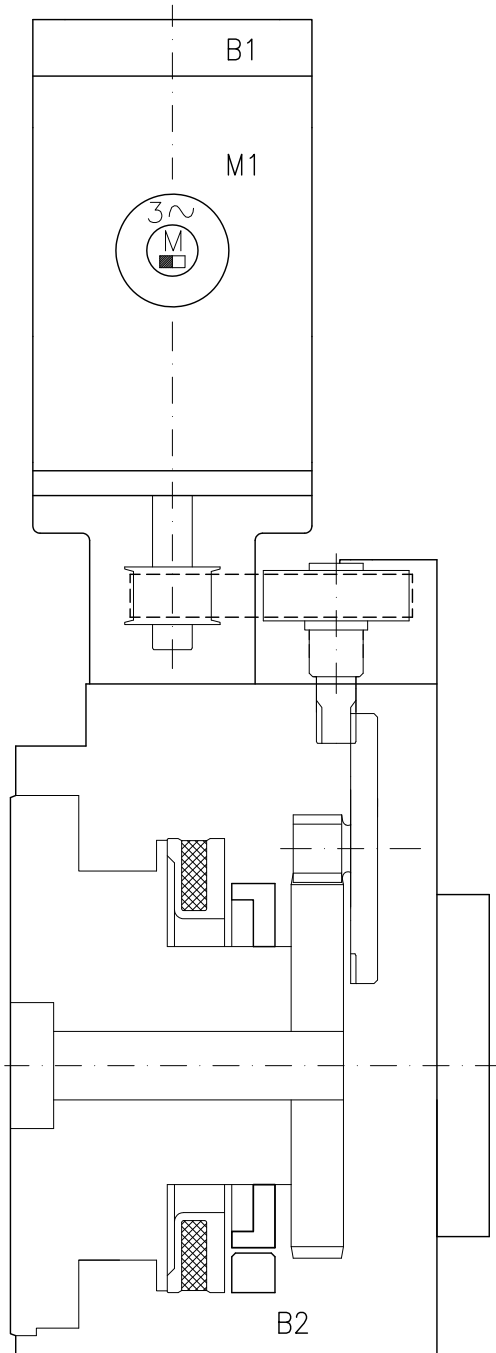
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Designation	Element/Function	Line	Connector 12 poles HDH Contact No.	Connector M12 8 pole Contact No.	Type	Supplier	
M1	Drive motor A.C. Servomotor				according to order		
B1	Measuring system Multiturn sensor				according to order		
B2	Measuring system incremental	A+	brown	5	ERA 4480 C 16384 signal periods	Heiden- hain	
		A-	green	6			
		B+	grey	8			
		B-	pink	1			
		R+	red	3			
		R-	black	4			
		5V(U _P)	brown/green	12/2			
		0V(U _N)	white/green	10/11			
		-	blue				
		-	white				
		-	-				
B2	Build in Angular measuring system	DATA	gray		ECA 4402 16379 signal periods positions/U = 27 bit	Heiden- hain	
		DATA	pink				3
		CLOCK	violet				4
		CLOCK	yellow				7
		U _P	brown/green				6
		0V(U _N)	white/green				8
		screen					5
		U _{Sensor}	blue				2
		0V _{Sensor}	white				1

① Option

* Remark:
Reference mark to synchronize with AZ.



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M1	Drive motor A.C. Servomotor			according to order		
B1	Mesuring system Multiturn sensor			according to order		
B2	Measuring system incremental	A+	brown	5	ERA 180 18000 Striche ERA 4480 C 20000 signal periods	Heiden- hain
		A-	green	6		
		B+	grey	8		
		B-	pink	1		
		R+	red	3		
		R-	black	4		
		5V(U _P)	brown/green	12/2		
		0V(U _N)	white/green	10/11		
		-	blue			
		-	white			
		-	-			
-	violet					
-	yellow					
B2	Build in Angular measuring system	DATA	gray	3	ECA 4402 19998 signal periods positions/U = 28 bit	Heiden- hain
		DATA	pink	4		
		CLOCK	violet	7		
		CLOCK	yellow	6		
		U _P	brown/green	8		
		0V(U _N)	white/green	5		
		screen				
		U _{Sensor}	blue	2		
0V _{Sensor}	white	1				

① Option

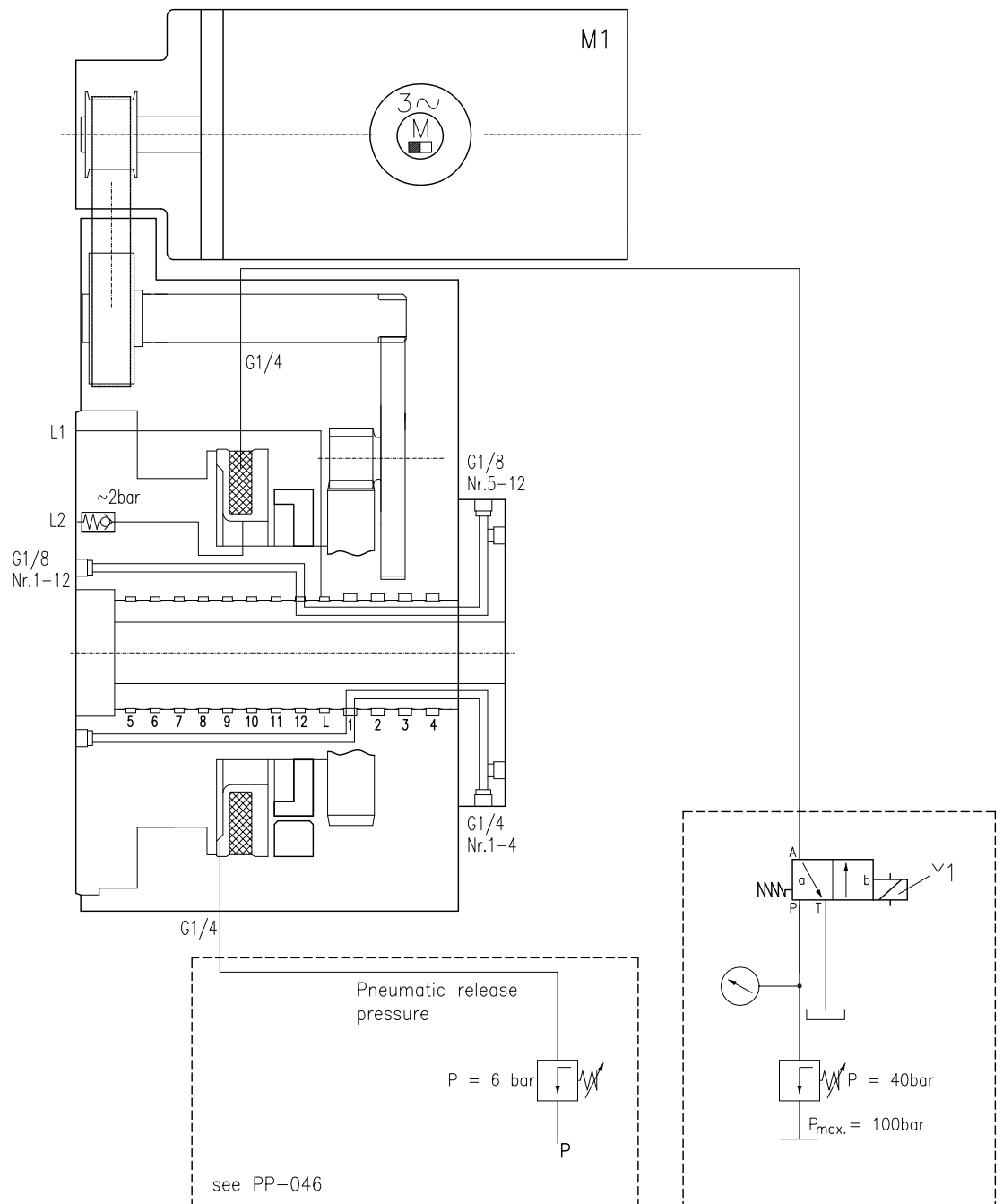
Remark:
ERA reference signal is
in the range 0° till 30°

12-fold Fluid rotary supply uncontrolled					
Plan surface No.	media	NS	Connections	Pmax.	Filter fineness
1 - 4	*	8	G 1/4	150 bar	<20 µm
5 - 12	oil	6	G 1/8	150 bar	<20 µm
5 - 12	air	6	G 1/8	8 bar	<20 µm
L1 + L2 = Leakage					

* = coolant OR hydraulic oil

Table of functions	Y1
Lock	1
Unlock	0

L1 = Leakage coolant + hydraulic oil
L2 = Leakage central lubrication

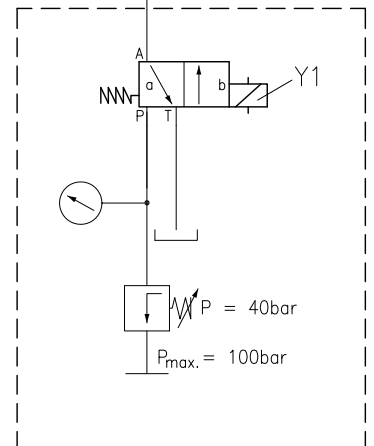
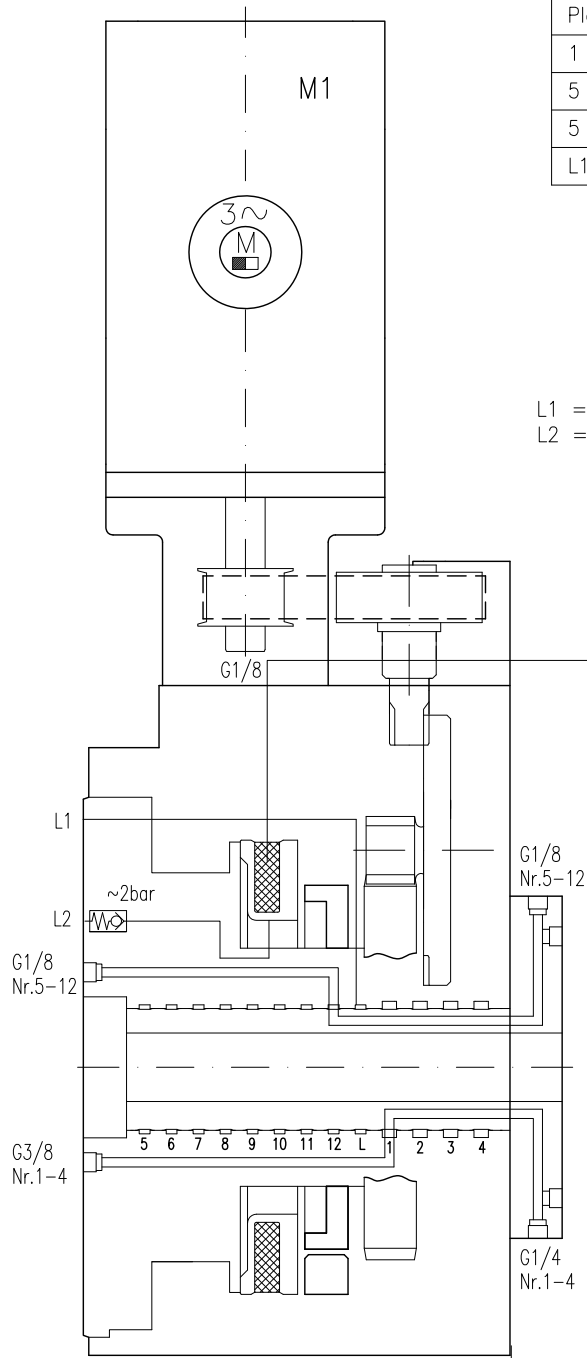


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L1 + L2 = Leakage					

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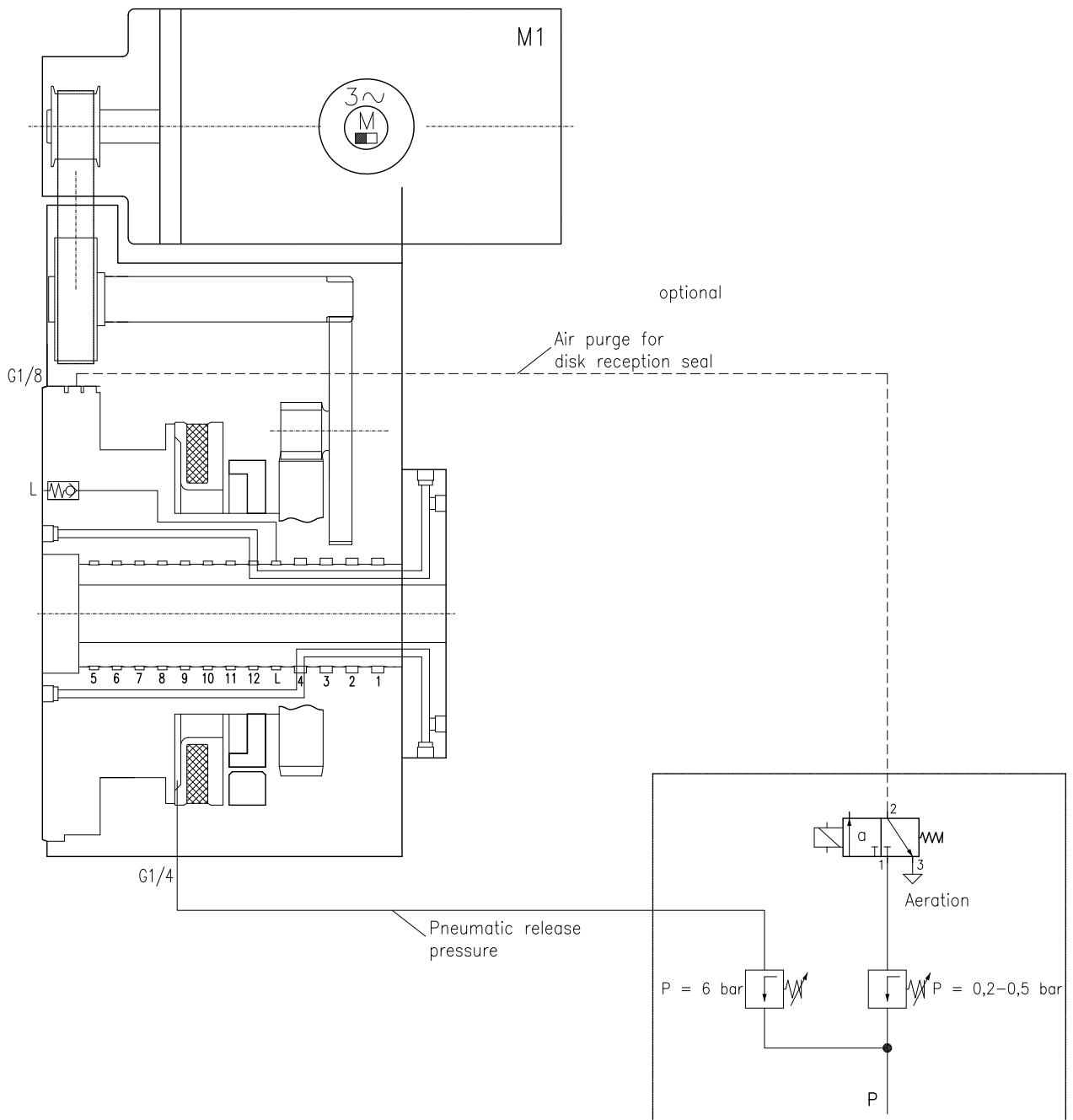
Table of functions	Y1
Lock	1
Unlock	0

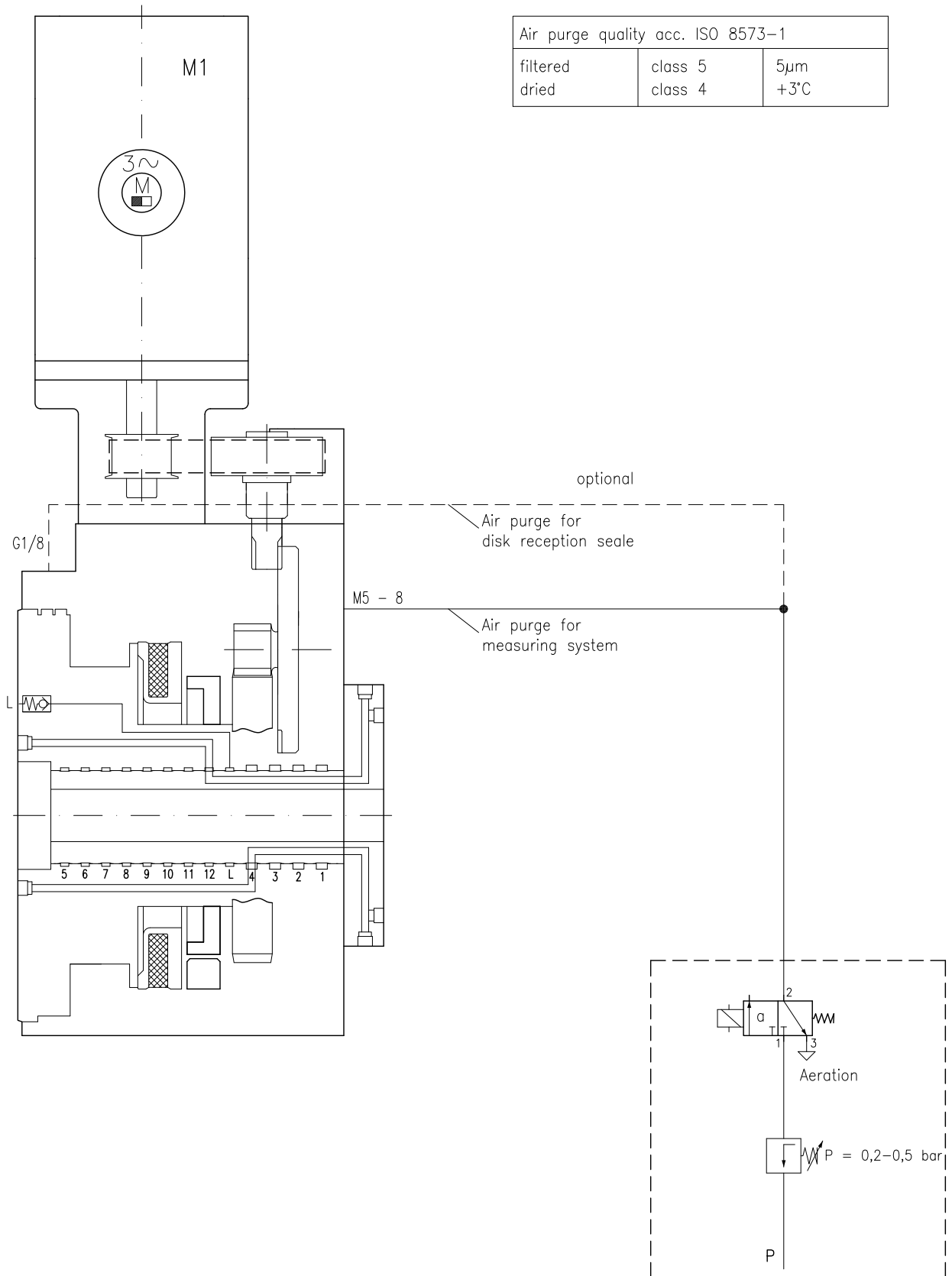
L1 = Leakage coolant + hydraulic oil
L2 = Leakage central lubrication



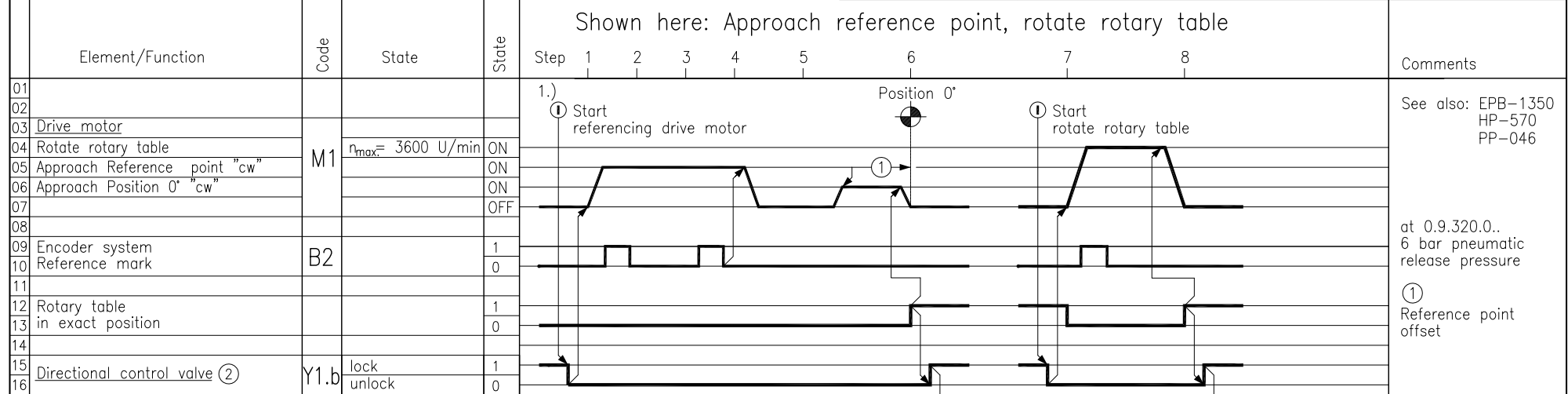
Air purge quality acc. ISO 8573-1

filtered	class 5	5µm
dried	class 4	+3°C





Air purge quality acc. ISO 8573-1		
filtered	class 5	5µm
dried	class 4	+3°C

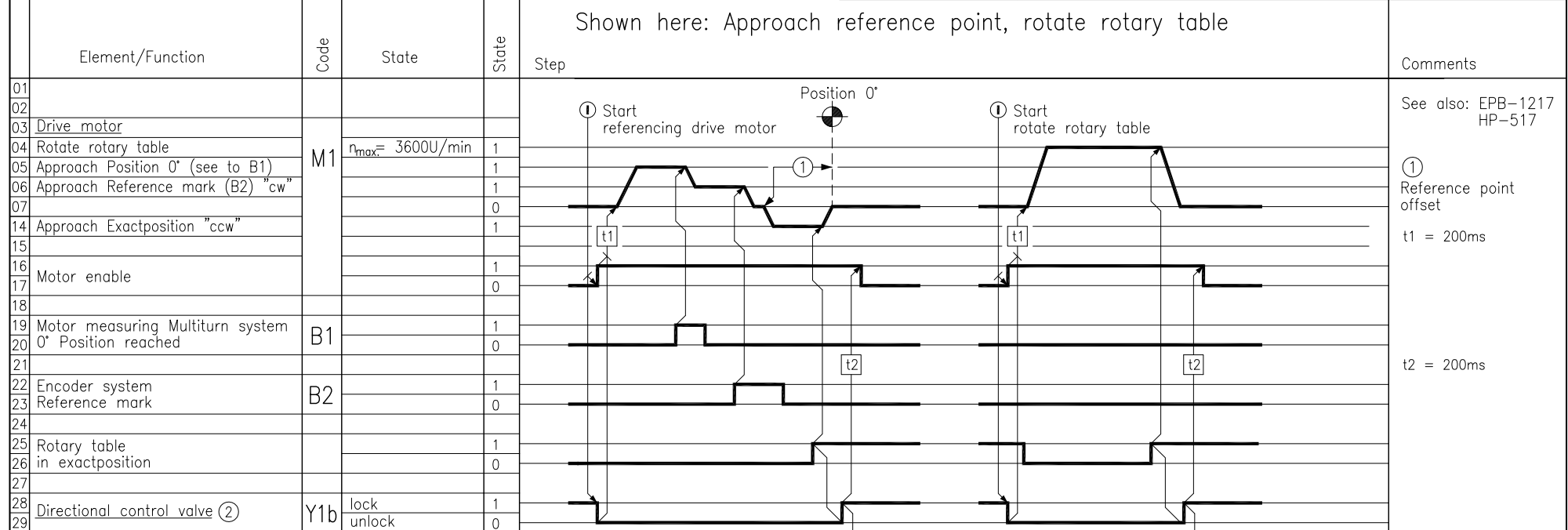


1.) Referencing only with incremental encoders

Approach
Reference point
Rotary table
in position 0°

Enable

②	
Table of functions	Y1
Lock	1
Unlock	0



Approach
Reference point
Round table
in position 0°

Enable

②	
Table of functions	Y1
Lock	1
Unlock	0

