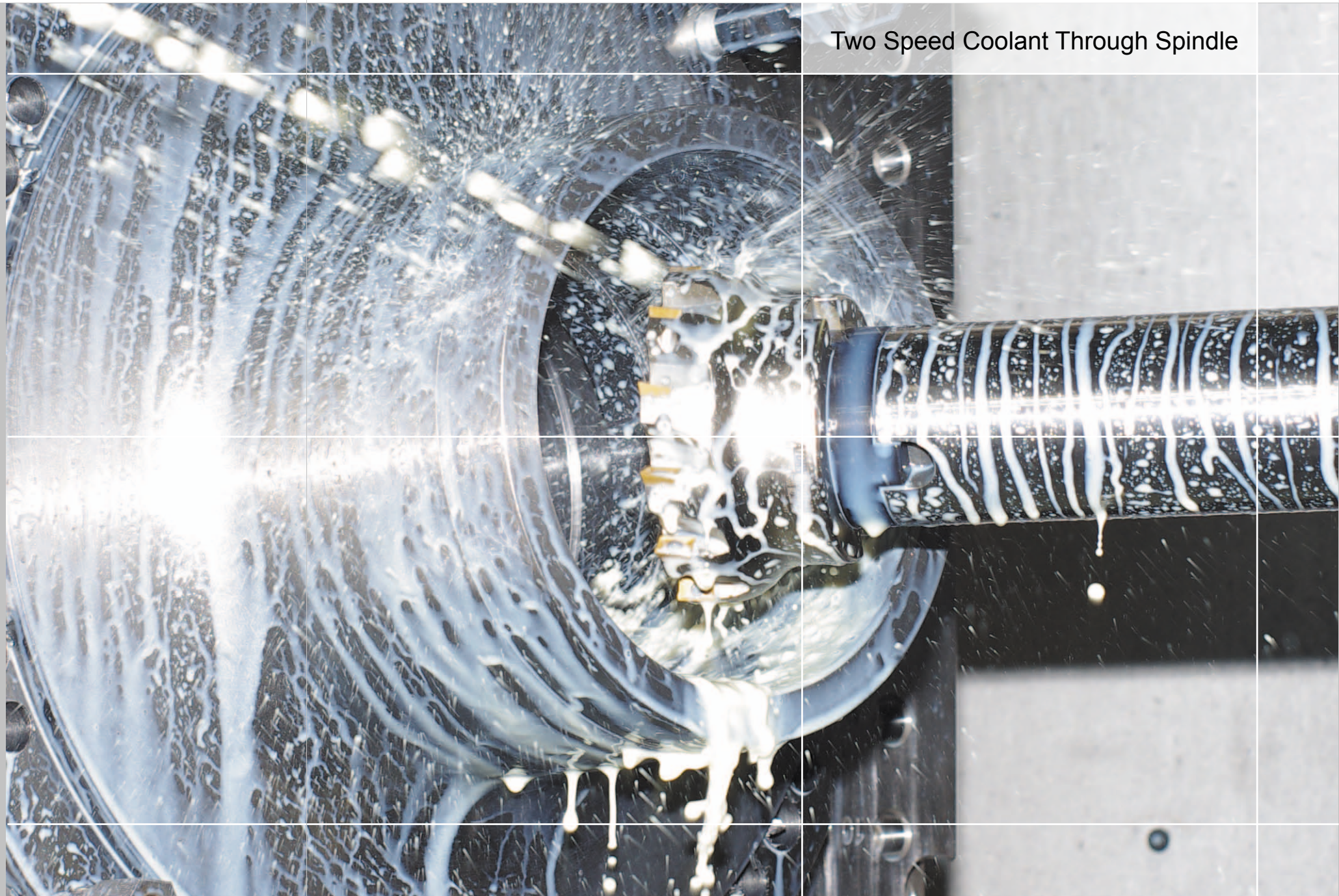


GTP2G CTS

Two Speed Coolant Through Spindle



GTP German Tech Precision Manufacturing Co., Ltd.

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Dynamic Power Transmission Co., Ltd.

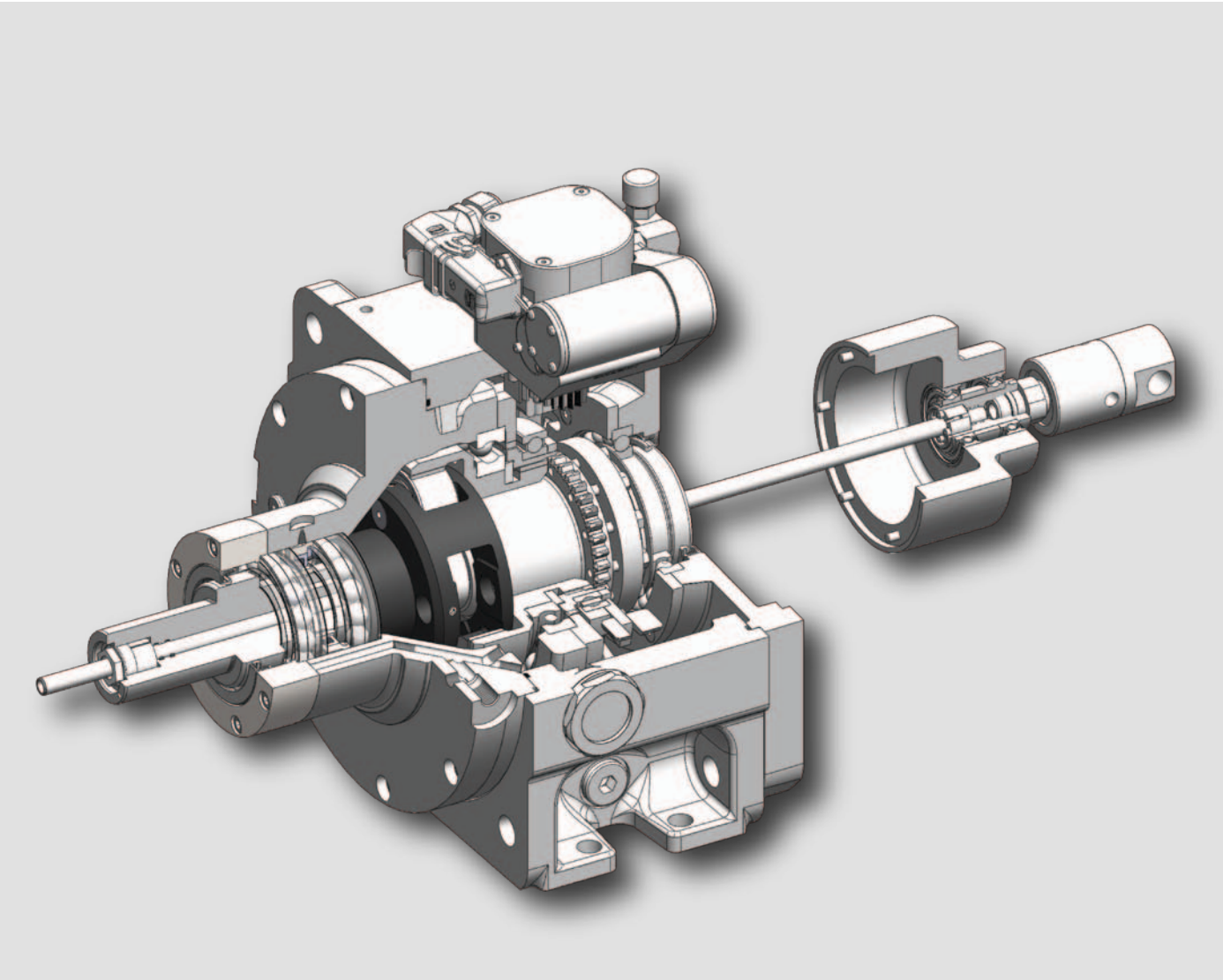


Management
System
ISO 9001:2015

www.tuv.com
ID 9108653884



GTP-2G CTS Speed Gear Box



CTS (Coolant Through Spindle)

To facilitate the transfer of cutting liquid like emulsion, hydraulic oil and air-oil mixture with up to 70 bars of pressure or a flow rate up to 70 L / min*) through the gear box and spindle directly to tooling.

Supply Scope:

- GTA Rotary Joint
- Steel Pipe
- Coolant Through Spindle Gear-Box
- Bearing Housing for Rotary Joint
-  ROBA-DS Coupling (option)

*)	Pipe (outer diameter)	Max. bar	Max. L/min
	7 mm	70	30
	10 mm	70	70

Technical Data

		Ratio	2G120/121	2G250	2G300
Nominal data :					
Motor frame size	(mm)		100	132	160
Nominal power	(KW)		19	39	47
Nominal speed	(min ⁻¹)		1500	1500	1500
Nominal input torque(continuous operation S1)	(Nm)		120	250	300
Output torque	(Nm)	1.00	120	250	300
	(Nm)	4.00	480	1000	1200
	(Nm)	4.91	589		
	(Nm)	5.50		1375	1375
Maximum data :					
Max. Torque in Nm(intermittent loading S6 cycle duration 10min, ED. Max. 60%)					
Input	(Nm)		140	400	400
Output(max. accelerating torque)	(Nm)	1.00	140	400	400
	(Nm)	4.00	560	1600	1600
	(Nm)	4.91	687		
	(Nm)	5.50		2200	2200
Max. permitted input speed	(min ⁻¹)				
In reduction ratio i≠1	(min ⁻¹)	≠1	8000	6300	6300
Direct drive i=1)	(min ⁻¹)	1 ¹⁾	12000 ¹⁾ 2)	10000 ¹⁾ 2)	10000 ¹⁾ 2)
Max. vibration value	(mm/s)	≤	1.0	1.0	1.0
At reference speed	(min ⁻¹)		6000	5000	5000
Max. axial force in reduction ratio in counter clockwise(ccw) operation running and max. input torque	(N)	4.00		3964	4756
See permissible axial force for motor shaft	(N)	4.91			
	(N)	5.50		5288	5288
Mass moment of inertia	(J in kgcm ²)	1.00	110	270	270
Output		4.00	144	570	570
Input			9	36	36
Operating data :					
Approx. oil fill in dm³ oil level in middle of oil sight glass is most accurate reading	Vertical(V1) Horizontal(B5)	Recirculating lubrication			
Oil grade :		HLP 32 as per ISO VG 32 HLP 22 as per ISO VG 22 For V1 and B5 installation position oil recirculating system is necessary			
Oil change interval		Every six months or 2000 hours			
Oil temperature		Max. 120° C, depending on application, installation position, lubrication and cooling condition			
Weight :					
Standard	(approx.kg)		45	71	95
Electrical connection :					
For shifting unit					
Power consumption	W		120	120	120
Supply voltage at shifting unit	V		24±10%	24±10%	24±10%
Current supply at 24V	A		5	5	5

1) Please make sure the min. flow-rate is 3 L / min and the min. oil pressure is 3 bar when you only use one channel (K port or L port) for channel lubrication system. If you use two channels (K port and L port) for channel lubrication system, the min. flow-rate is 2.5 L / min and oil pressure is 2.5 bar.

2) Max. speed only permitted with port K or port L.

※ Please make sure the pressure and volume of oil according operating instruction.

GTP - 2G CTS

Ordering numbers for gearbox types 2G120/121

Note :

1) RWDR=Radial shaft seal

*motor-specific on request

			2	G															
			1	2	3	4	5	6	—	7	8	9	10	11	—	12	13		
Two-speed gearbox																			
Motor brand :																			
Siemens	1																		
Heidenhain	2																		
Fanuc	3																		
Mitsubishi	6																		
Other motor (please provide motor data and drawing)	7																		
Input interface																			
Closed with hub and hub bearing and RWDR 1)*	3																		
Close with hub and RWDR without bearing	4																		
Flange input (Ø100K6)	9																		
*Gearbox type :																			
100/i ₁ = 4.00	12																		
100/i ₁ = 4.91	09																		
112/i ₁ = 4.00	11																		
112/i ₁ = 4.91	08																		
Output bearings :																			
Angular-contact ball bearings	4																		
Spindle Ang. ball bearing	5																		
Gearbox output :																			
a1 = 38 mm INLINE	C																		
Installation position :																			
V1 / B5 / B5 turned (shifting unit on right side, view from input)	E																		
Motor shaft diameter "d"																			
Flange input	0																		
28mm	1																		
32mm	2																		
38mm	3																		
42mm	4																		
48mm	9																		
Torsional backlash on gearbox output :																			
Reduced backlash max. 20 arcmin	3																		
Minimal reduced backlash max. 15 arcmin	4																		
Coolant through spindle	T																		
Special application	A																		

GTP - 2G CTS

Ordering numbers for gearbox types 2G250/2G300

Note :

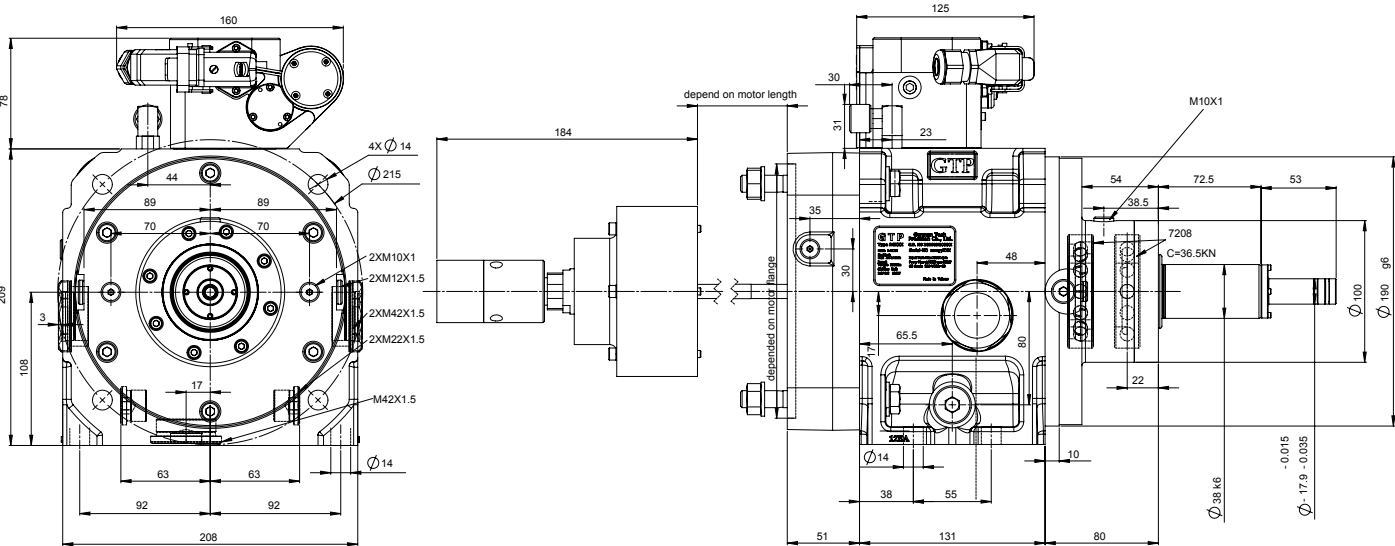
1) RWDR=Radial shaft seal

*motor-specific on request

			2	G															
			1	2	3	4	5	6	—	7	8	9	10	11	—	12	13		
Two-speed gearbox																			
Motor brand :																			
Siemens	1																		
Heidenhain	2																		
Fanuc	3																		
Mitsubishi	6																		
Other motor (please provide motor data and drawing)	7																		
Input interface																			
Closed with hub and hub bearing and RWDR 1)*	3																		
Close with hub and RWDR without bearing	4																		
Flange input (Ø118K6)	9																		
*Gearbox type :																			
132/i ₁ = 4.00	15																		
160/i ₁ = 4.00	20																		
132/i ₁ = 5.5	17																		
160/i ₁ = 5.5	22																		
Output bearings :																			
Angular-contact ball bearings	4																		
Spindle Ang. ball bearing	5																		
Gearbox output :																			
a1 = 42 mm INLINE	U																		
Installation position :																			
V1 / B5 / B5 turned (shifting unit on right side, view from input)	E																		
Motor shaft diameter "d"																			
2G250 2G300																			
Flange input	0																		
42mm 55mm	1																		
48mm 60mm	2																		
Torsional backlash on gearbox output :																			
Reduced backlash max. 20 arcmin	3																		
Minimal reduced backlash max. 15 arcmin	4																		
Coolant through spindle	T																		
Special application	A																		

Installation Drawing : **2G120 CTS**

Standard
SHIFTING UNIT WITHOUT NEUTRAL POSITION
SHIFTING UNIT WATTAGE 120W AT 24 VDC

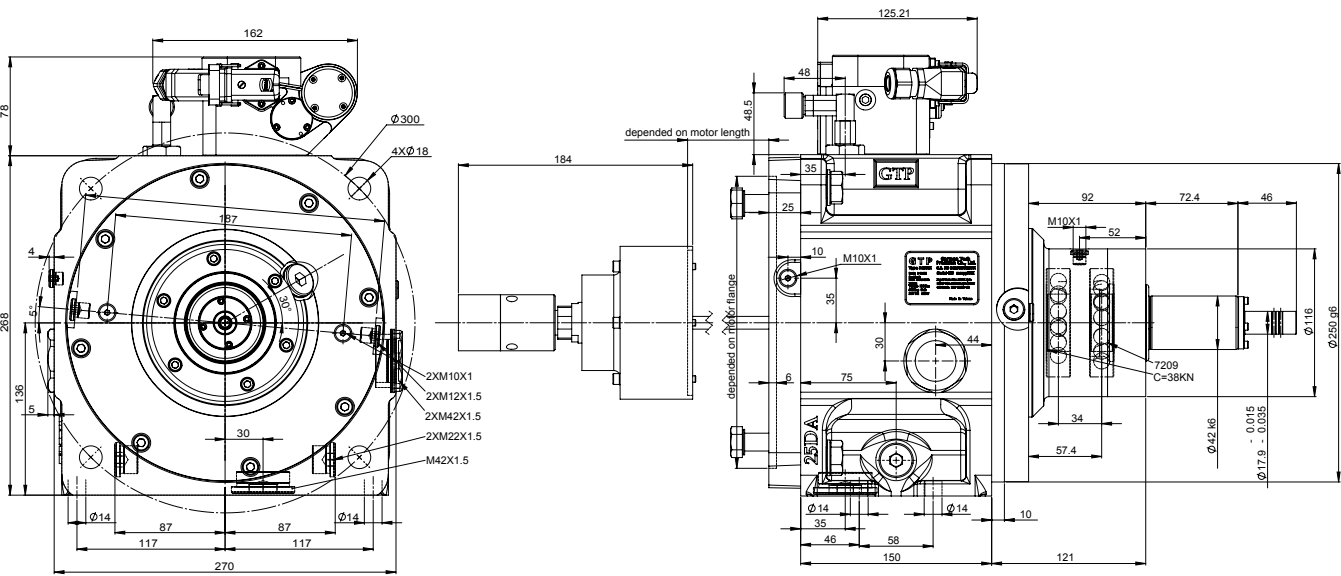


OIL GRADE : HLP 32 ACC. To ISO VG 32 or
HLP 22 ACC. To ISO VG 22 WITH
RECIRCULATING LUBRICATION

OIL LEVEL SIGHT GLASS (LEFT AND RIGHT)

Installation Drawing : **2G250 CTS**

Standard
SHIFTING UNIT WITHOUT NEUTRAL POSITION
SHIFTING UNIT WATTAGE 120W AT 24 VDC

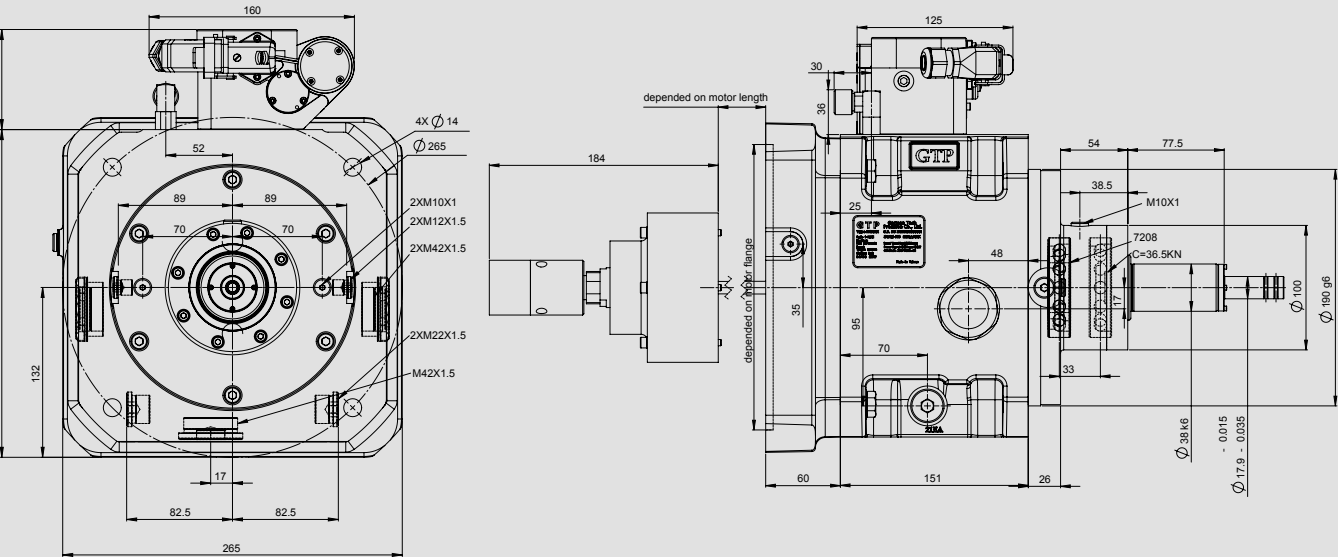


OIL GRADE : HLP 32 ACC. To ISO VG 32 or
HLP 22 ACC. To ISO VG 22 WITH
RECIRCULATING LUBRICATION

OIL LEVEL SIGHT GLASS (LEFT AND RIGHT)

Installation Drawing : **2G121 CTS**

Standard
SHIFTING UNIT WITHOUT NEUTRAL POSITION
SHIFTING UNIT WATTAGE 120W AT 24 VDC

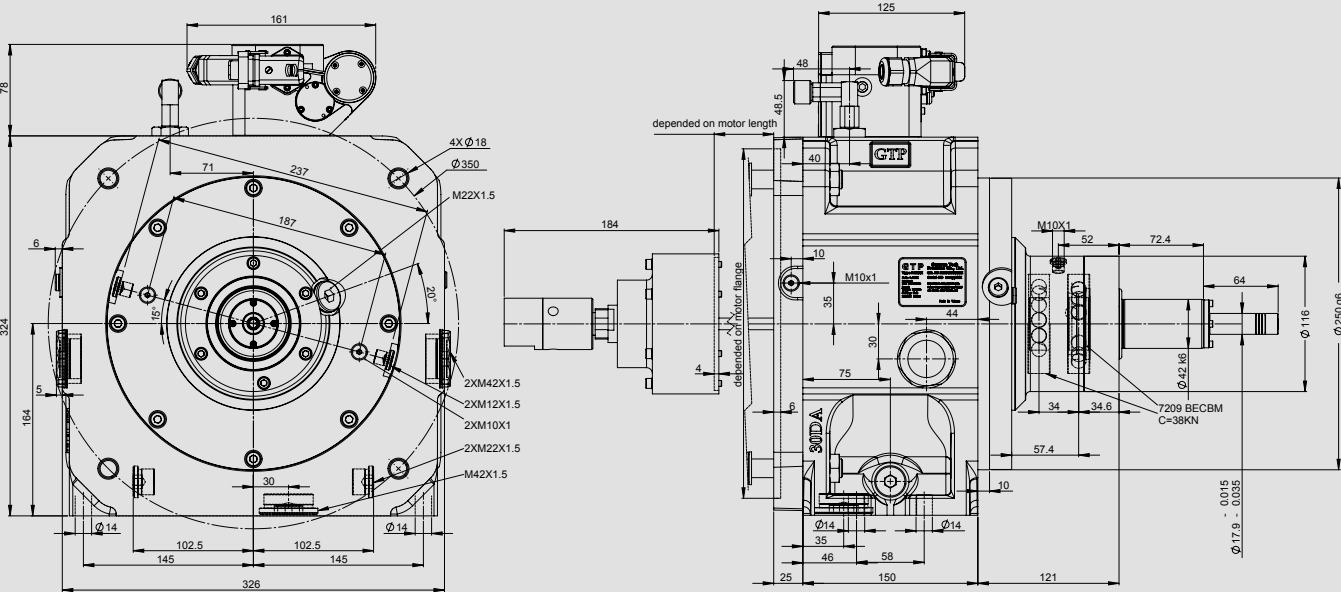


OIL GRADE : HLP 32 ACC. To ISO VG 32 or
HLP 22 ACC. To ISO VG 22 WITH
RECIRCULATING LUBRICATION

OIL LEVEL SIGHT GLASS (LEFT AND RIGHT)

Installation Drawing : **2G300 CTS**

Standard
SHIFTING UNIT WITHOUT NEUTRAL POSITION
SHIFTING UNIT WATTAGE 120W AT 24 VDC



OIL GRADE : HLP 32 ACC. To ISO VG 32 or
HLP 22 ACC. To ISO VG 22 WITH
RECIRCULATING LUBRICATION

OIL LEVEL SIGHT GLASS (LEFT AND RIGHT)