



# **TANK CAPACITY**

from 8 It to 150 It

# **PUMP FLOW RATE**

from 1,6 It to 41It

# STANDARD COMPONENTS



- 1) Electric motor
- 2) Manometer with shut-off selector
- 3) Pressure relief valve
- 4) Charge cover
- 5) Level gauge
- 6) Oil reservoir
- 7) intake filter
- 8) Gear pumps
- 9) Motor pump connection group

# HYDRAULIC SYMBOL



# DESCRIPTION

The CTR\* power units, are realised with a soaked gear pump and a vertically mounted electric motor.

The tank cover can be rotated of  $180^{\circ}$  without disassembling the installed components.

The standard components are intake filter, gear pump, motor pump connection group, arrangement for the electric motor, pressure relief valve, a position for one electro-valve (not included in the supplying), manometer with the shut-off cock, oil charge cover and oil visual indicator.

The electric motor supplied is a eurotension4-poles three-phase asynchronous motor with shape B5 according to UNEL-MEC standards.

The available paintings are dull black RAL 9005 (standard), Grey RAL 7037 and Green RAL 6011.

The power units works with mineral oil (not included in the supplying).

To work with other hydraulic fluids, please consult our Technical Department.

#### OPTIONALS

The standard power unit can be equipped with the following components:

- CTR 0 1 2
  - other settings for electro-valves ISO 4401-03 (CETOP 03) with P2D modular subplates
  - thermostat
  - level gauge
  - return filter for line mounting
  - other colour paintings under request
- CTR 3 4
  - high pressure pumps H version
  - other settings for electrovalves ISO 4401-03 (CETOP 03) with P2D modular subplates.
  - thermostat
  - level gauge
  - a return filter for line mounting
  - an heat exchanger air/oil or water/oil
  - other colour paintings under request

The standard power unit is delivered without the functional diagram.



# 1 - CTR0 power unit

### 1.1 - Identification code



# 1.2 - Flowrate / pressure table

Electric motor fl	ange size		Ø = 160			
			Electric motor power [kW]			
CTR0	Pump type	Flow rate at 1500 rpm	0,25	0,37		
		[lt/min]	Max pressure [bar]			
008	1P 1,6 R	1,6 *	80	115		
	2 R	2,0	65	95		
	2,5 R	2,4 *	55	80		
	3,3 R	3,2	40	60		
	4,2 R	3,9 *	30	50		
	5 R	4,8	25	40		
	5,8 R	5,5 *	20	35		
	6,7 R	6,3	15	30		
	7,5 R	7,1	10	25		

# 1.3 - Overall and mounting dimensions for CTR0





#### 2.1 - Identification code



# 2.2 - Flowrate / pressure table

	Electric motor flange size				Ø = 200				
				Electric motor power [kW]					
CTR1		Pump type	Flow a 1500 rpm	0,55	0,75	1	1,5		
			[]		max pres	sure [bar]			
020	013	1P 1,6 R	1,6 *	180	-	-	-		
		2 R	2,0	145	195	-	-		
		2,5 R	2,4 *	120	160	-	-		
		3,3 R	3,2	90	120	160	-		
			4,2 R	3,9 *	75	100	130	200	
		5 R	4,8	60	80	110	160		
				5,8 R	5,5 *	50	70	95	140
		6,7 R	6,3	45	60	80	120		
		7,5 R	7,1	40	55	70	110		
		9,2 R	8,7 *	35	45	60	90		
		11,5 R	11,9	25	30	45	65		

# 2.3 - Overall and mounting dimensions for CTR1





#### 3.1- Identification code



#### 3.2 - Flowrate / pressure table

	Electric motor flange size			Ø = 200				
		Flowrate at 1500 rpm	Electric motor power [kW]					
CTR2	Pump type		0,55	0,75	1	1,5		
		[[01111]		max pres	sure [bar]			
025	1P 1,6 R	1,6 *	180	-	-	-		
	2 R	2,0	145	195	-	-		
	2,5 R	2,4 *	120	160	-	-		
	3,3 R	3,2	90	120	160	-		
	4,2 R	3,9 *	75	100	130	200		
	5 R	4,8	60	80	110	160		
	5,8 R	5,5 *	50	70	95	140		
	6,7 R	6,3	45	60	80	120		
	7,5 R	7,1	40	55	70	110		
	9,2 R	8,7 *	35	45	60	90		
	11,5 R	11,9	25	30	45	65		
	GP1-0013	2,0 *	140	190	250	-		
	0020	3,0 *	95	130	170	250		



# 3.3 - Overall and mounting dimensions for basic CTR2

# 3.4 - CTR2 with optionals





#### 4.1 - Identification code



# 4.2 - Flowrate / pressure table

	Electric motor flange size			Ø = 200 Ø = 250							
				Flow rate at 1500	Electric motor power [kW]						
CTR3		Pump type	rpm	0,55	0,75	1,1	1,5	2,2	3	4	
				[lt/min]			max	pressure	[bar]	•	
075	050	035	GP1-0013	2,0	145	195	-	-	-	-	-
			0020	3,0	90	120	160	-	-	-	-
			0027	4,0	75	100	130	200	-	-	-
			0034	5,1	60	80	110	160	-	-	-
			0041	6,1 *	45	60	80	120	185	-	-
			0051	7,6 *	35	50	65	105	150	200	-
			0061	9,1	30	40	55	85	125	170	-
			0074	11,1 *	25	30	45	65	100	140	180
			0091	13,6	20	25	40	55	85	115	150
		N /	0108	15,7	15	20	35	50	70	95	130
		1\ /	GP2-0113	16,9 *	10	15	30	45	65	90	120
	$  \rangle /$	$  \rangle /$	0140	21,0 *	-	10	25	35	55	75	100
	$  \rangle /$		0158	23,7	-	-	20	30	45	65	85
	ΙX	ΙÅ	0178	26,7 *	-	-	15	25	40	55	75
	$  / \rangle$	0208	31,2	-	-	10	20	35	50	65	
	$ / \rangle$	$ / \rangle$	0234	35,1 *	-	-	-	15	30	45	60
	$ / \rangle$	/ \	0279	41,8	-	-	-	10	25	35	50



# 4.3 - Overall and mounting dimensions for basic CTR3

# 4.4 - CTR3 with optionals





### 5.1 - Identification code



#### 5.2 - Flowrate / pressure table

Electric motor flange size			Ø = 250 Ø = 300							
				Electric motor power [kW]						
CTR4			Pump type	Flow rate at 1500 rpm	2,2	3	4	5,5	7,5	9
				[iviiiii]			max pres	sure [bar]		
150 120 100		GP1-0041	6,1	185	-	-	-	-	-	
100	120	100	0051	7,6	150	200	-	-	-	-
			0061	9,1	125	170	-	-	-	-
			0074	11,1	100	140	180	-	-	-
			0091	13,6	85	115	150	-	-	-
			GP2-095	14,2 *	80	110	145	200	-	-
			0113	16,9 *	65	90	120	170	-	-
			0140	21 *	55	75	100	135	185	-
			0158	23,7 *	45	65	85	120	165	-
			0178	26,7 *	40	55	75	105	145	-
			0208	31,2 *	35	50	65	90	125	150
			0234	35,1 *	30	45	60	80	110	130
			0279	41,8	25	35	50	70	95	110

# 5.3 - Overall and mounting dimensions for CTR4-P2



5.4 - Overall and mounting dimensions for CTR4-P2X\*M



# 6 - ACCESSORIES

# 6.1 - Level gauge LV/E1-127-M12-SC cod. 0770764

Maximum pressure	bar	1
Working temperature	°C	-20 / +70
Transparent tube material	/	Nylon + glass 35%
Seals material	/	NBR
Reed in exchange	/	1A, 20W, 20VA, 200V







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CONNECTOR CE DIN 40050 IP65 PG7



### 6.2 - Thermostat TC2 cod. 0630285

External sensor temperature range	°C	0/90
Degree of protection	/	IP40
Contacts	A	10
Max. voltage	V AC	250
Max. working temperature	°C	50
Cable guide	/	PG9
Housing material	/	Plastic
Contacts material	/	Silver
Capillary material	/	Copper
Pocket material	/	Brass
Mass	Kg	0.3



# 6.2.1 - Overall dimensions



# 6.3 - FRC return line filter for tank top or line mounting cod. 3951600004

#### 6.3.1 - Technical data

Filter code	BSP port dimensions	Mass [kg]	Rated flow (indicative) [l/min] P25L		
FRC-TB034	3/4"	1,6		75	
Maximum pressure	9		bar	7	
Collapsing differer element	tial pressure of	the filter	bar	3.0	
Differential pressu by-pass valve (±10	re for the openin ) %)	g of the	bar	1,7	
Ambient temperatu	ure range		°C	-25 / +50	
Fluid temperature	range		°C	-25 / +110	
Fluid viscosity rang	ge		cSt	10 ÷ 400	

**NOTE 1**: The flow rate stated in the table correspond to a 0.5 bar pressure drop measured with mineral oil of viscosity 36 cSt at  $50^{\circ}$ C.

As for a different viscosity range, see the catalogue 95160.

For further detailed informations and overall dimensions please consult the catalogue 95160.

### 6.3.2 - Clogging indicators

The filters are all designed to incorporate clogging indicators, which have to be ordered separately.

1 - VR/10 Visual indicator for return filters Identification code: 3959000003



This indicator is a pressure gauge sensitive to the filter input pressure.

The indicator is supplied with a  $0 \div 6$  bar graduated scale and with a two-colour reading scale, which informs you about the clogging condition of the filter element:

GREEN: efficient filter element (0 ÷ 1.7 bar)

RED: the filter element has to be replaced (> 1.7 bar)

#### **TECHNICAL SPECIFICATIONS**

Operating pressure	bar	1,5				
AC power supply						
Max. operating voltage	VAC	250 50/60 Hz				
Max. load on the contacts (inductive or resistive) with V at 125 VAC	A	3				
DC power supply		0,0				
Max. operating voltage	VDC	30				
Max. load on the contacts resistive inductive	A	3 1				
Electric connector		DIN 43650				
Class of protection according to CEI EN 60529 (atmospheric agents)	IP65					
Atex classification	3	3 GD EEx e T6				

2 - ER/11 Electric indicator for return filters Identification code: 3959000016



This indicator is a pressure switch sensitive to the filter input pressure, which switches an electric contact when the filter element has reached the clogging limit.

The contact can be wired in an open or closed condition (see the hydraulic symbol).

# 6.4 - Heat Exchanger oil/water with fixed blowing air flow .

#### 6.4.1 - Technical data

		2010K	2020K	
Code		0713268	0712078	
Operating pressure	bar	2	0	
Test pressure	bar	3	5	
Maximum operating pressure	°C	1:	20	
Air Flow	m³/h	190	645	
Capacity	litre	0,3	0,7	
Three-phase supply voltage	V	230 - 400		
Frequency	Hz	50 / 60		
Rpm	kW	0,045	0,068	
Thermostat regulation field	°C	40 - 28	50 - 38	
Oil threaded inlet / outlet connections	-	1/2" BSP	1" BSP	
Mass	kg	6	8	
IP protection degree		IP54	IP44	

#### CLEANING AND MAINTENANCE

As a general rule verify that the voltage supply correspond to those shown on the plate.

<u>Cleaning oil side</u>: The exchanger must be dismounted. Dirt can be removed by a detergent product as perchloride, in the opposite direction to normal. At the end it must be washed out with hot water.

<u>Cleaning air side</u>: This can be done means of compressed air or water. The direction of the jet must be parallel to the fins, to avoid damaging them. If the dirt is oil or greasy it must be cleaned by a jet of steam or hot water.

The electric motor must be protected during the cleaning operation.

#### 6.4.2 - Characteristics









# 6.4.3 - Overall dimensions





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