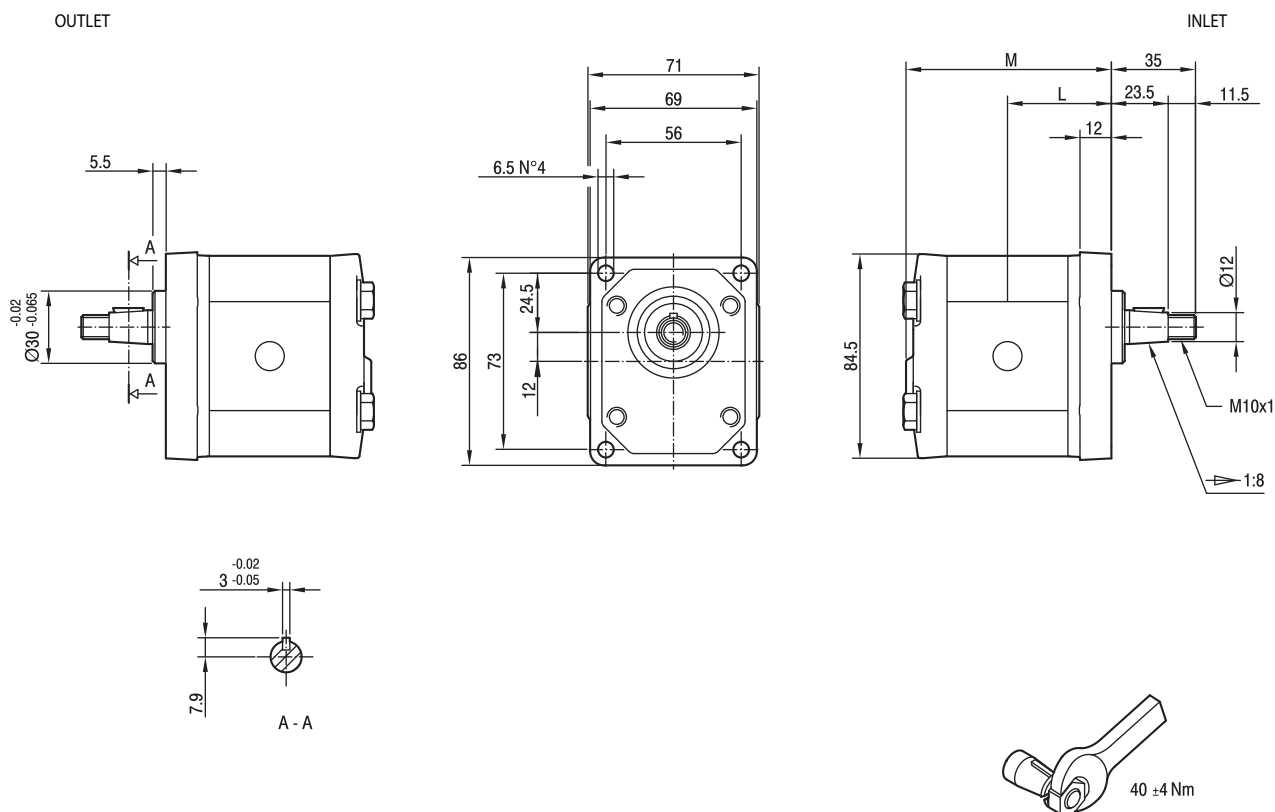




## GEAR PUMPS

## GHP1 SERIES

### DIMENSIONAL DETAILS



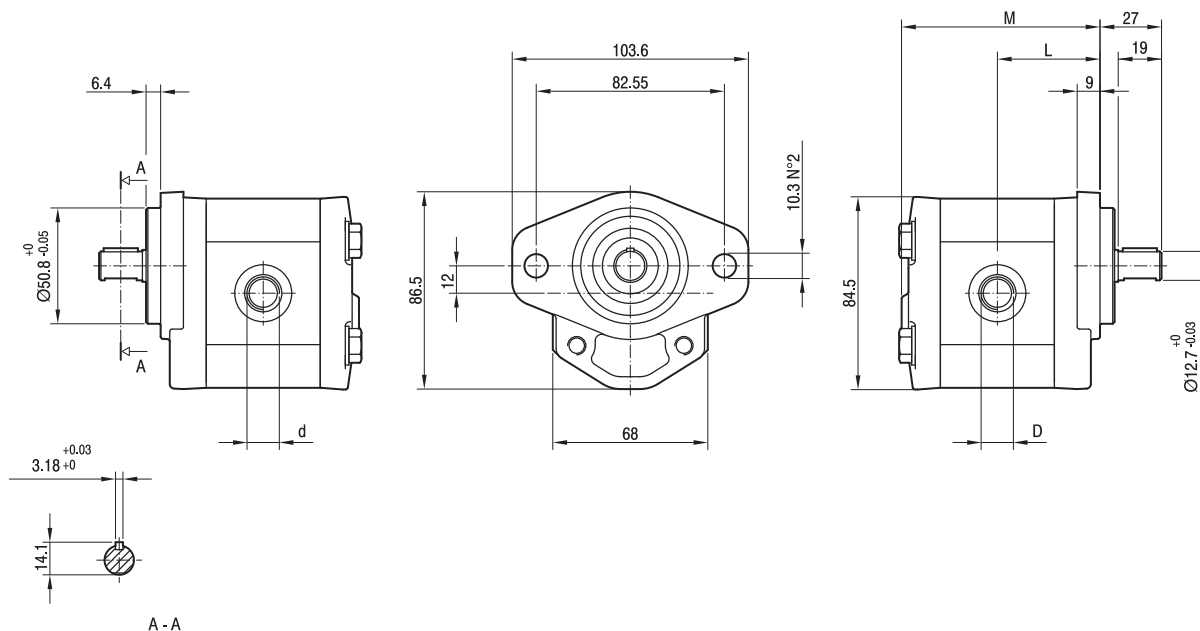
TYPE	DISPLACEMENT CM <sup>3</sup> /REV	FLOW AT 1500 REV/MIN	MAX. WORKING PRESSURE			MAX. SPEED RPM	DIMENSIONS MM	
			P1	P2	P3		L	M
GHP1D2	1.4	2.0	270	290	310	6000	40	79
GHP1D3	2.1	2.9	270	290	310	6000	41	81
GHP1D4	2.8	3.9	270	290	310	5000	42	83
GHP1D5	3.5	4.9	270	290	310	5000	43	85
GHP1D6	4.1	5.9	270	290	310	4000	44	87
GHP1D7	5.2	7.4	260	275	290	4000	45.5	90
GHP1D9	6.2	8.8	260	275	290	3800	47	93
GHP1D11	7.6	10.8	230	245	260	3200	49	97
GHP1D13	9.3	13.3	210	225	240	2600	51.5	102
GHP1D16	11.0	15.7	200	215	230	2200	54	107
GHP1D20	13.8	19.7	180	195	210	1800	58	115

P1 = Continuous Operating Pressure  
P2 = Intermittent Operating Pressure  
P3 = Peak Pressure

## DIMENSIONAL DETAILS

OUTLET

INLET



TYPE	DIS- PLACE- MENT CM <sup>3</sup> /REV	FLOW AT 1500 REV/MIN	MAX. WORKING PRESSURE			MAX. SPEED RPM	DIMENSIONS MM			
			P1	P2	P3		L	M	d	D
GHP1AD2	1.4	2.0	270	290	310	6000	42	81	9/16 -18 UNF	3/4 -16 UNF
GHP1AD3	2.1	2.9	270	290	310	6000	43	83		
GHP1AD4	2.8	3.9	270	290	310	5000	44	85		
GHP1AD5	3.5	4.9	270	290	310	5000	45	87		
GHP1AD6	4.1	5.9	270	290	310	4000	46	89		
GHP1AD7	5.2	7.4	260	275	290	3500	47.5	92		
GHP1AD9	6.2	8.8	260	275	290	3000	49	95	3/4 -16 UNF	7/8 -14 UNF
GHP1AD11	7.6	10.8	230	245	260	3500	51	99		
GHP1AD13	9.3	13.3	210	225	240	3000	53.5	104		
GHP1AD16	11.0	15.7	200	215	230	2500	56	109		
GHP1AD20	13.8	19.7	180	195	210	2000	60	117		

P1 = Continuous Operating Pressure  
P2 = Intermittent Operating Pressure  
P3 = Peak Pressure



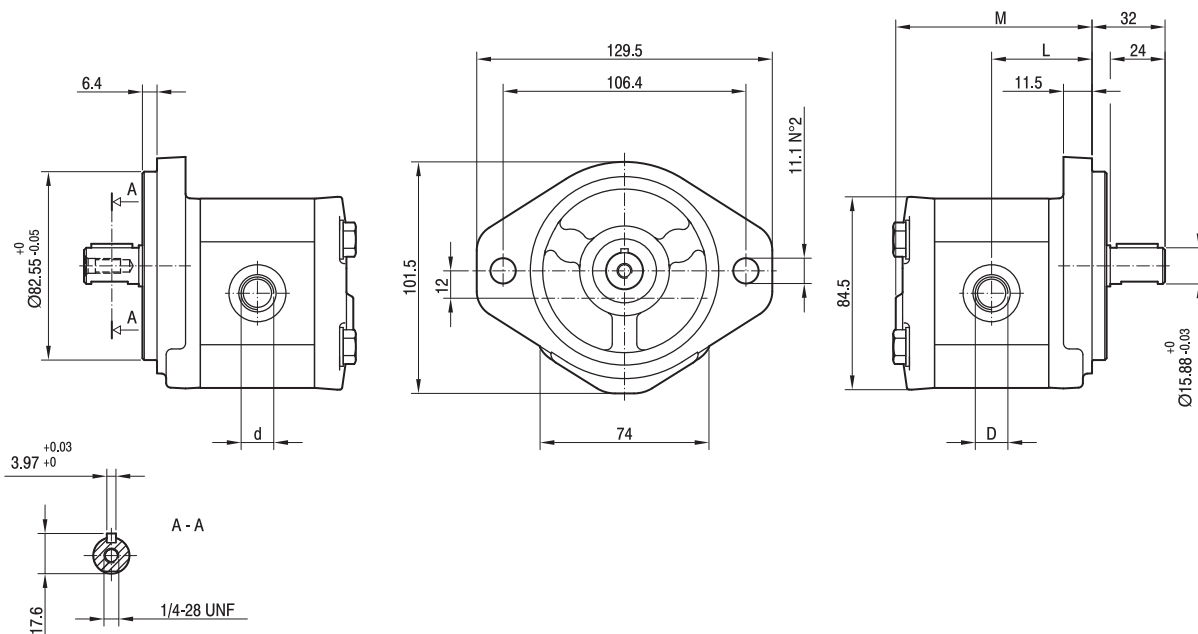
## GEAR PUMPS

## GHP1A2 SERIES

### DIMENSIONAL DETAILS

OUTLET

INLET



TYPE	DIS- PLACE- MENT CM <sup>3</sup> /REV	FLOW AT 1500 REV/MIN	MAX. WORKING PRESSURE			MAX. SPEED RPM	DIMENSIONS MM			
			P1	P2	P3		L	M	d	D
GHP1A2D2	1.4	2.0	250	270	290	6000	41	80	9/16 -18 UNF	3/4 -16 UNF
GHP1A2D3	2.1	2.9	250	270	290	6000	42	82		
GHP1A2D4	2.8	3.9	250	270	290	5000	43	84		
GHP1A2D5	3.5	4.9	250	270	290	5000	44	86		
GHP1A2D6	4.1	5.9	250	270	290	4000	45	88		
GHP1A2D7	5.2	7.4	230	245	260	3500	46.5	91		
GHP1A2D9	6.2	8.8	230	245	260	3000	48	94	3/4 -16 UNF	7/8 -14 UNF
GHP1A2D11	7.6	10.8	200	215	230	3500	50	98		
GHP1A2D13	9.3	13.3	180	195	210	3000	52.5	103		
GHP1A2D16	11.0	15.7	170	185	200	2500	55	108		
GHP1A2D20	13.8	19.7	150	165	180	2000	59	116		

P1 = Continuous Operating Pressure  
P2 = Intermittent Operating Pressure  
P3 = Peak Pressure



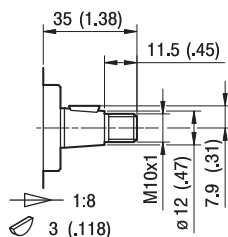
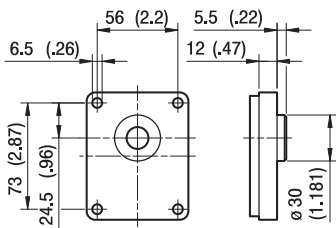
## GEAR PUMPS

## GHP1 SERIES

### FLANGE & SHAFT DETAILS

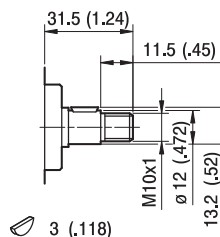
#### FLANGES

#### SHAFTS



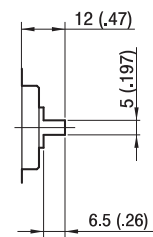
T0

Max Torque 100 Nm



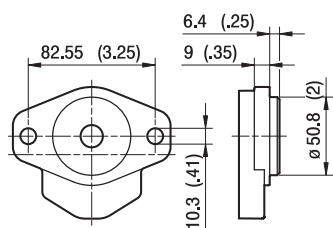
C0

Max Torque 55 Nm

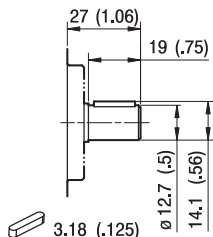


G0

Max Torque 45 Nm

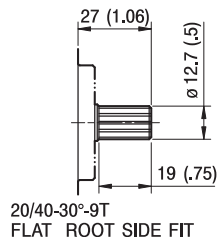


A



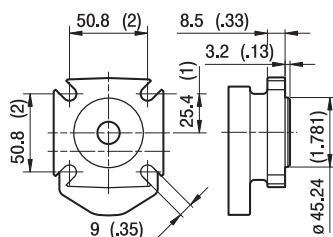
C1

Max Torque 60 Nm

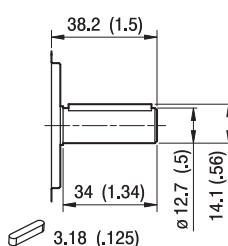


S1

Max Torque 100 Nm

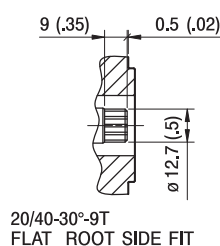


AQ



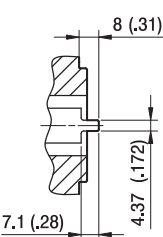
C2

Max Torque 100 Nm



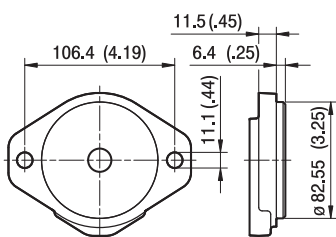
S2

Max Torque 95 Nm

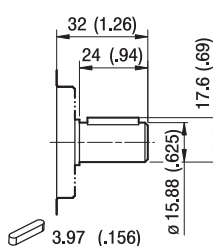


G1

Max Torque 45 Nm

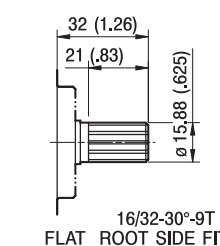


A2



C3

Max Torque 120 Nm



S3

Max Torque 145 Nm

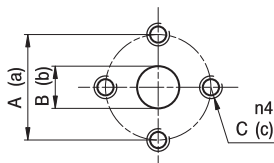


## GEAR PUMPS

## GHP1 SERIES

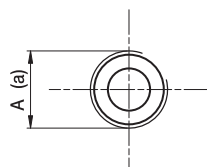
### PORT DETAILS

#### PORTS



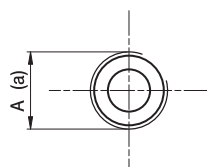
TYPE	INLET			OUTLET		
	A	B	C	a	b	c
GHP1...2÷GHP1...20	30	13	M6	30	13	M6

Tightening torques of the fittings screws are specified on page 55 (accessories section).



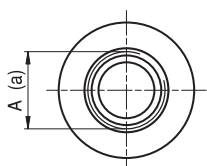
TYPE	INLET	OUTLET
	A	a
GHP1...2 ÷ GHP1...5	G1/2	G3/8
GHP1...6÷GHP1...20	G1/2	G1/2

Tightening torques for G1/2 fitting: 50 Nm. Tightening torques for G3/8 fitting: 35 Nm. Please check with the fittings suppliers.



TYPE	INLET	OUTLET
	A	a
GHP1...2÷GHP1...20	Rc1/2	Rc1/2

Tightening torques for Rc1/2 fitting: 50 Nm. Please check with the fittings suppliers.



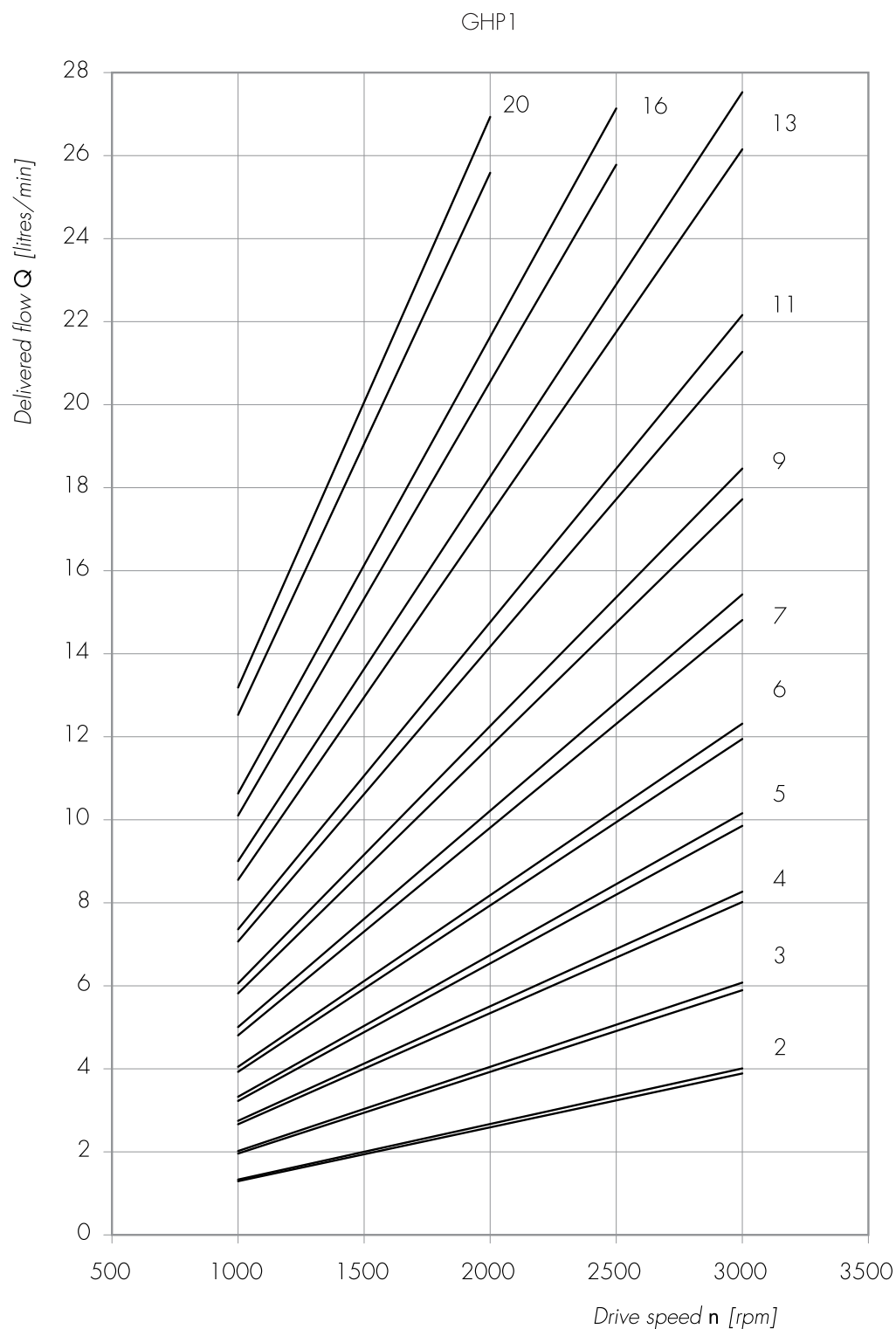
STANDARD SAE J1926/1

TYPE	INLET	OUTLET
	A	a
GHP1...2 ÷ GHP1...9	3/4-16 UNF	9/16-18 UNF
GHP1...11÷GHP1...20	7/8-14 UNF	3/4-16 UNF

Tightening torques for 9/16-18 UNF fitting: 30 Nm. Tightening torques for 3/4-16 UNF fitting: 60 Nm. Tightening torques for 7/8-14 UNF fitting: 70 Nm. Please check with the fittings suppliers.



## GHP1 PERFORMANCE CURVES



Each curve has been obtained at 50°C, using oil with viscosity 30 cSt at these pressure.

2 |  
3 |— 25-300 bar  
4 |

5 |  
6 |— 25-280 bar

7 |  
9 |— 25-270 bar

11 |— 25-230 bar

13 |— 25-190 bar

16 |— 25-170 bar

20 |— 25-150 bar

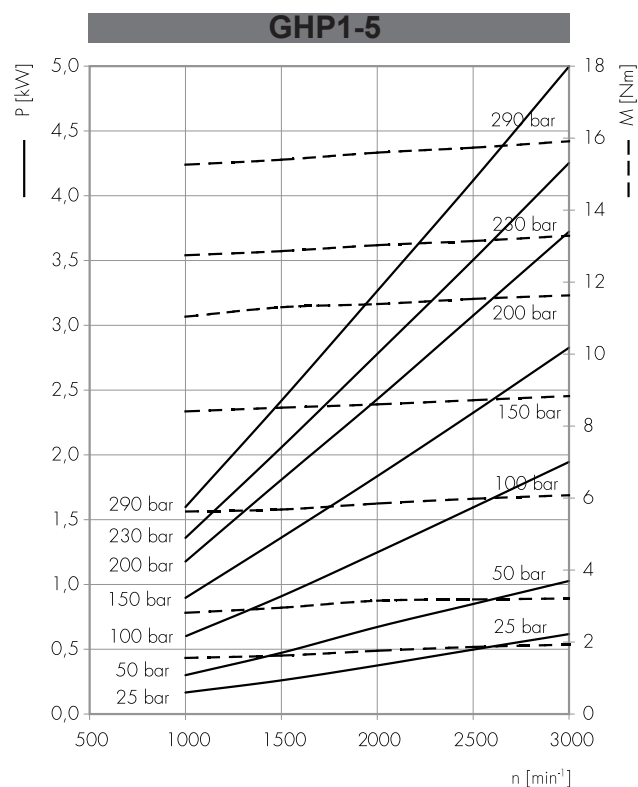
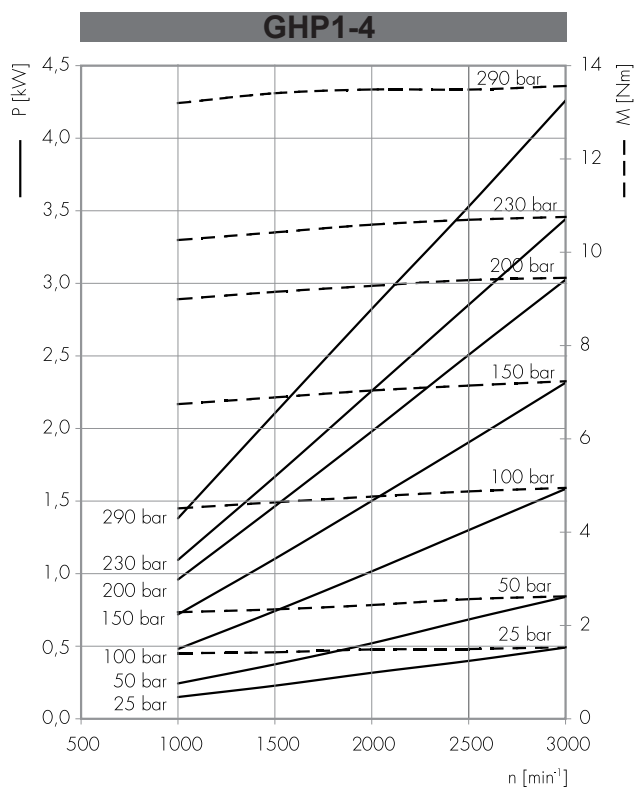
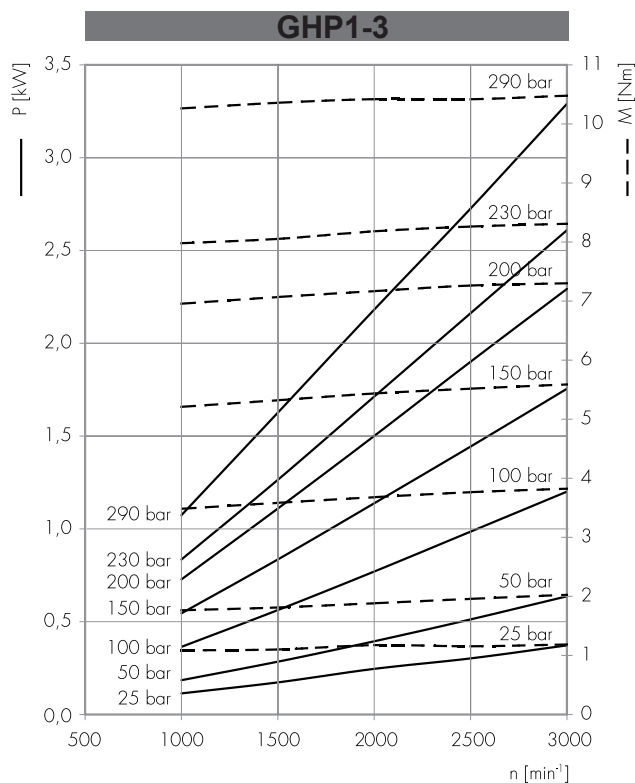
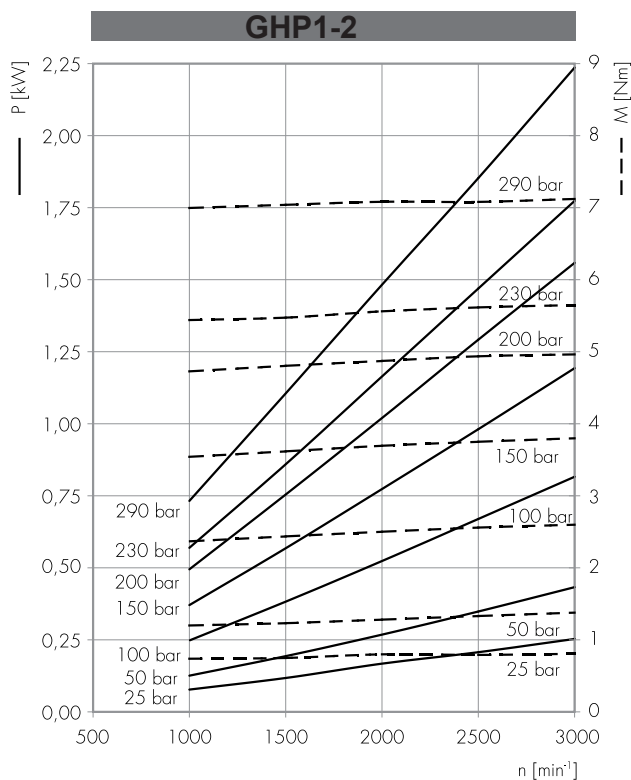


## GEAR PUMPS

## GHP1 SERIES

### TYPICAL PERFORMANCE DATA

Absorbed power  $P$  [kW]  
Absorbed torque  $M$  [Nm]  
Drive speed  $n$  [rpm]



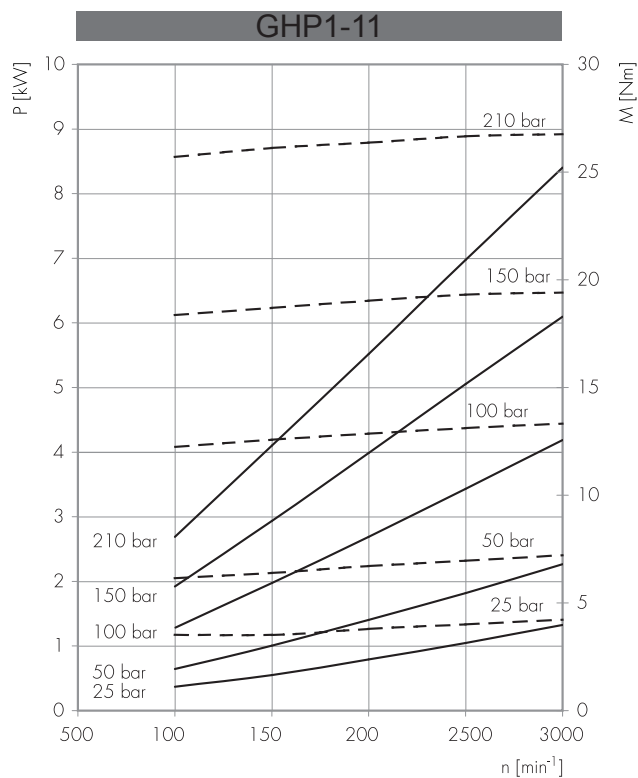
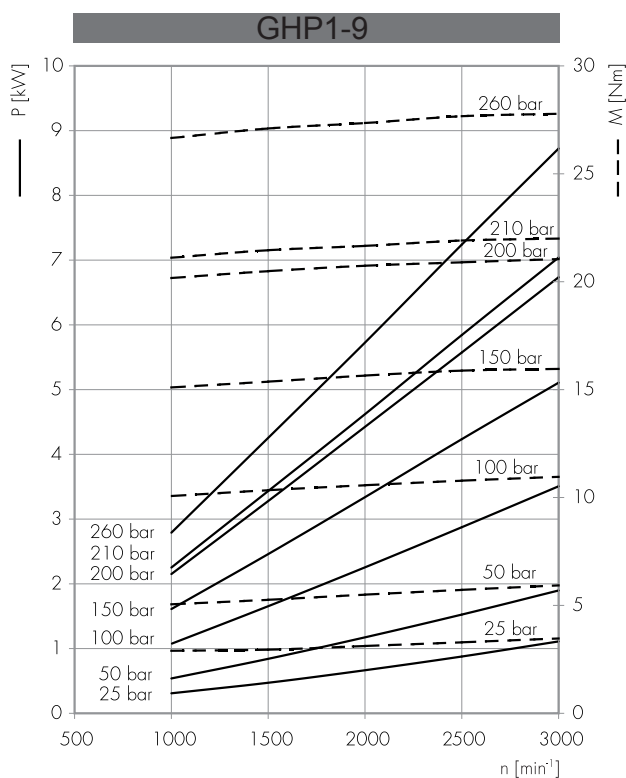
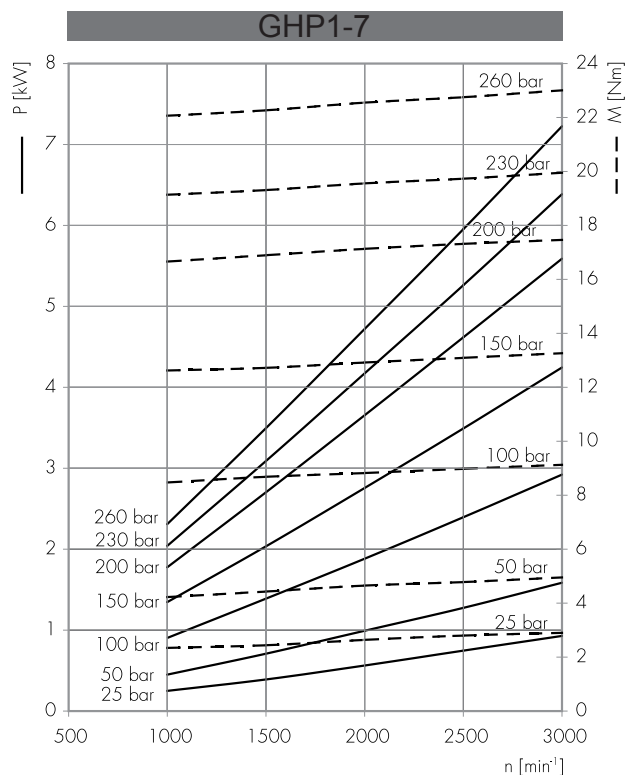
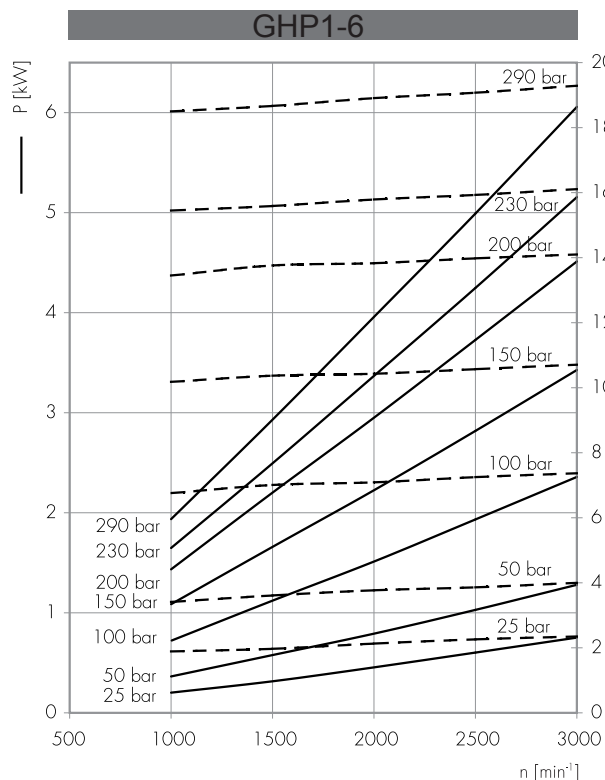


## GEAR PUMPS

## GHP1 SERIES

### TYPICAL PERFORMANCE DATA

Absorbed power  $P$  [kW]  
Absorbed torque  $M$  [Nm]  
Drive speed  $n$  [rpm]





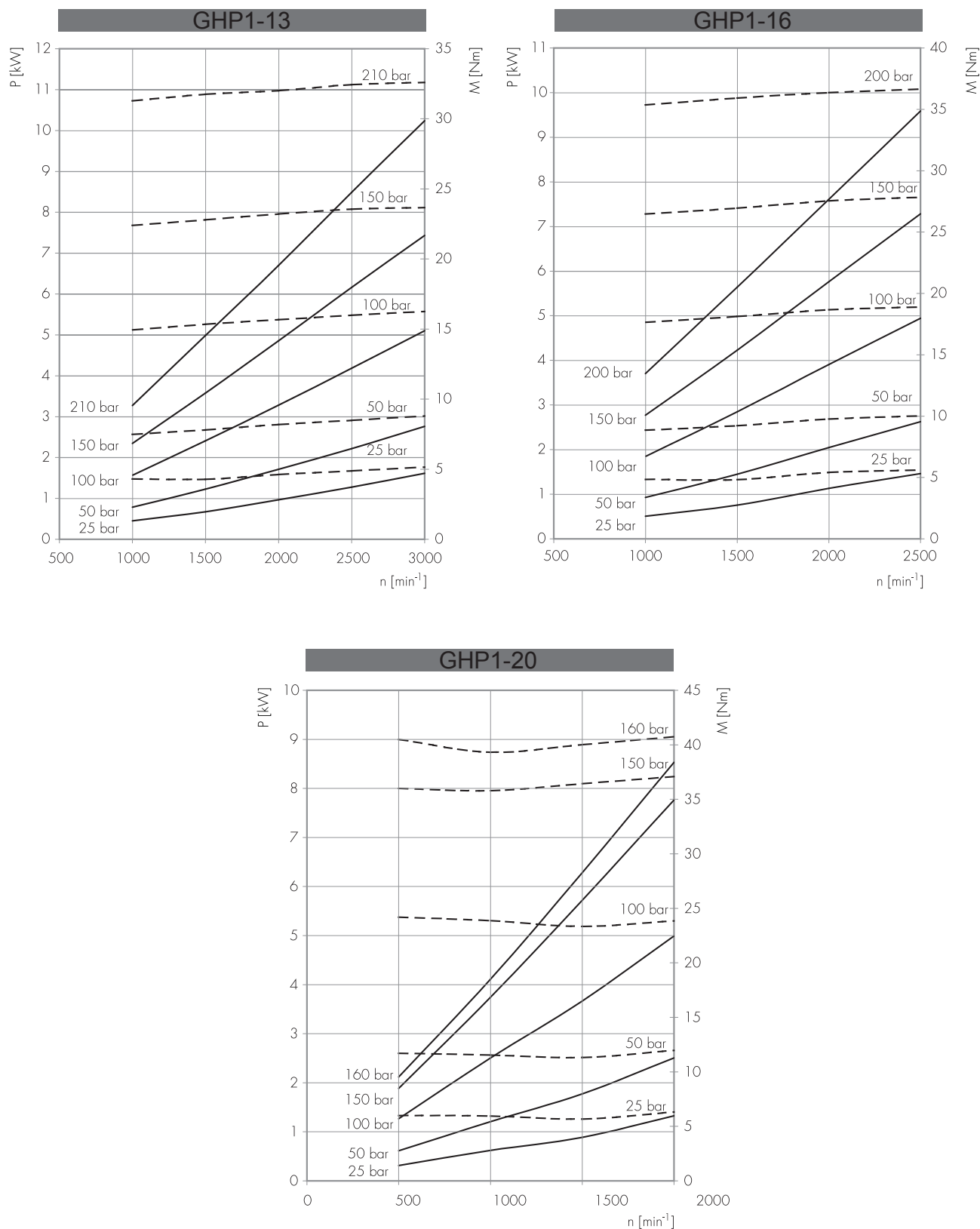


## GEAR PUMPS

## GHP1 SERIES

### TYPICAL PERFORMANCE DATA

Absorbed power  $P$  [kW]  
Absorbed torque  $M$  [Nm]  
Drive speed  $n$  [rpm]





## GEAR PUMPS

## GHP1 SERIES

### HOW TO ORDER

GHP1	TYPE	ROTATION	SIZE	SHAFT*	PORTS*	SEALS*	OPTIONS*	DRAIN*
	omit	D CLOCKWISE	2			<b>Seals</b> omit (T range = -10°C + 80°C) V H ...	<b>Options</b> TR RA ...	
	A	S COUNTER CLOCKWISE	3					
	AQ	R** REVERSIBLE	4					
	A2		5					
			6					
			7					
			9					
			11					
			13					
			16					
			20					

\*\*\* E2 = external drain 9/16-18 UNF

(\*) = to be specified if different from standard pump type

(\*\*) = R rotation is available for all listed displacements

(\*\*\*) = "E2" drain port is machined in compliance with threaded port with O-ring seal in truncated housing SAE J1926/1 (ISO 11926-1). Thread depth 12,7 mm.

#### Pump Standard Types

omit = european flange + shaft T0 + ports E + standard seals  
A = flange A + shaft C1 + ports FA + standard seals  
AQ = flange AQ + shaft C2 + ports FA + standard seals  
A2 = flange A + shaft C3 + ports FA + standard seals