

# HAWK Pump Catalogue

## Standard Pumps

### 2015



#### Guide to pump selection

BAR	NHD 120	NHD 150	NHD 200	NMT	NPM	NLTI	XLTI	XXT	PXI	MXT	MPX 350	MPX 500	HFR	HHP	NHD-HY	NHD 120-C	NHD 150-C	NHD 200-C	NHD-HY	NHD-G	NHD-G1	NMP-GR	FOG	NMT-ES	NMT-CW	NMT-HT 85°	XLTI-HT 85°	XXT-HT 85°	MXT-HT 85°	XLTI-Atex	BAR
500									1450 RPM			1450 RPM		1450 1000 RPM																	500
350											1450 RPM																				350
300							1450 RPM																							1450 RPM	300
280													1450 RPM																		280
250					1450 RPM	1450 RPM																3400 RPM									250
200			1450 RPM	1450 RPM				1450 RPM							1450 RPM			1450 RPM	1450 RPM	3400 RPM	3400 RPM			1450 RPM	1450 RPM		1450 RPM				200
170																															170
150		1450 RPM								1450 RPM							1450 RPM										1450 RPM	1450 RPM	1450 RPM		150
140																															140
120	1450 RPM															1450 RPM															120
100																							1450 RPM								100
L/ min.	Min. 4 Max. 12	Min. 8,5 Max. 15	Min. 8,5 Max. 15	Min. 12,5 Max. 21	Min. 15 Max. 18	Min. 25 Max. 30	Min. 15 Max. 54	Min. 42,6 Max. 70,0	Min. 11,3 Max. 21,7	Min. 70 Max. 100	Min. 38 Max. 45	Min. 25 Max. 36	Min. 40 Max. 120	Min. 25 Max. 50	Min. 15 Max. 15	Min. 8,5 Max. 12	Min. 8,5 Max. 15	Min. 18,5 Max. 15	Min. 15 Max. 15	Min. 9,5 Max. 11,4	Min. 11,4 Max. 14,4	Min. 11,5 Max. 17	Min. 1 Max. 8	Min. 12,5 Max. 21	Min. 12,5 Max. 21	Min. 12,5 Max. 21	Min. 15 Max. 42	Min. 55 Max. 70	Min. 15 Max. 30	Min. 15 Max. 30	L/ min.

# Standard Pumps - Technical drawings

## NMT / NPM Series / Serie

NMT pumps are among the best known products on the market. They can handle pressures from 200 to 250 bar and a water temperature of 65°C (149 F). They are an excellent solution for use in the home or for industrial jobs, and there are countless possible applications, from common tasks such as cleaning motor vehicles like cars, trucks and motorcycles. They can also be fitted onto cleaning machines designed to cater for particularly challenging jobs like outdoor flooring, walls, railings or industrial kitchens.



Part. No. Codice	Flow Rate / Portata				Max Pressure Pressione massima		RPM Giri /Minuto		Max Power / Potenza Massima				Power take-off Prova di forza
	l/min		US GPM		Bar	Psi	50 Hz	60 Hz	HP		Kw		
	50 Hz	60 Hz	50 Hz	60 Hz					50 Hz	60 Hz	50 Hz	60 Hz	
NMT1220SL	12.5	15.0	3.3	4.0	200	3000	1000	1200	6.4	7.7	4.7	5.7	△24
NMT1220SR	12.5	15.0	3.3	4.0	200	3000			6.4	7.7	4.7	5.7	24▷
NMT1520SL	15.0	18.0	4.0	4.7	200	3000			7.7	9.2	5.7	6.8	△24
NMT1520SR	15.0	18.0	4.0	4.7	200	3000			7.7	9.2	5.7	6.8	24▷
NMT1220L	12.5	15.0	3.3	4.0	200	3000	1450	1740	6.4	7.7	4.7	5.7	△24
NMT1220R	12.5	15.0	3.3	4.0	200	3000			6.4	7.7	4.7	5.7	24▷
NMT1520L	15.0	18.0	4.0	4.7	200	3000			7.7	9.2	5.7	6.8	△24
NMT1520R	15.0	18.0	4.0	4.7	200	3000			7.7	9.2	5.7	6.8	24▷
NMT1820L	18.0	21.4	4.8	5.6	200	3000			9.2	11.0	6.8	8.1	△24
NMT1820R	18.0	21.4	4.8	5.6	200	3000			9.2	11.0	6.8	8.1	24▷
NMT2120L	21.0	25.0	5.5	6.6	200	3000			10.7	12.8	7.9	9.4	△24
NMT2120R	21.0	25.0	5.5	6.6	200	3000			10.7	12.8	7.9	9.4	24▷
NPM1525L	15.0	18.0	4.0	4.7	250	3625			1450	1740	9.6	11.5	7.0
NPM1525R	15.0	18.0	4.0	4.7	250	3625	9.6	11.5			7.0	8.5	24▷
NPM1825L	18.0	21.6	4.7	5.6	250	3625	11.5	13.8			8.5	10.2	△24
NPM1825R	18.0	21.6	4.7	5.6	250	3625	11.5	13.8			8.5	10.2	24▷

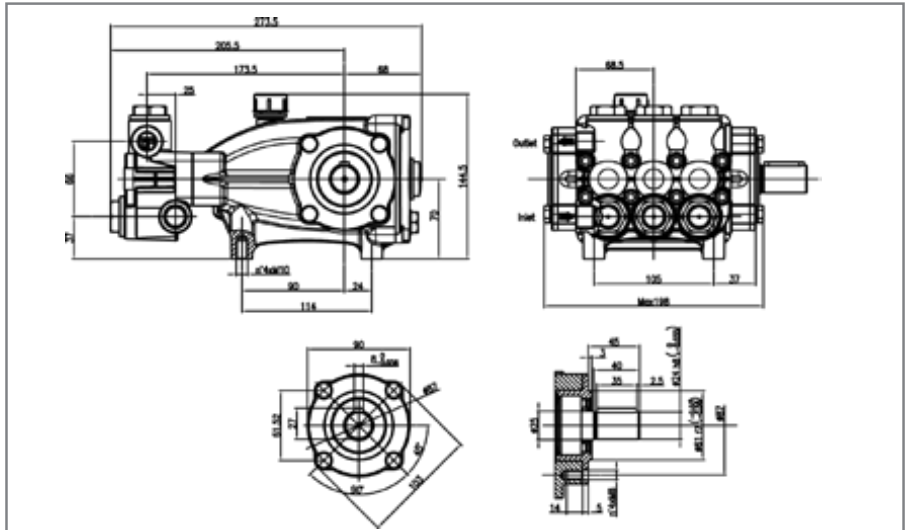
### P.T.O. Reference guide / Legenda prese di forza

Single P.T.O. Ø 24 mm Left  
Singola presa di forza Ø 24 mm Sinistra **△24**  
Single P.T.O. Ø 24 mm Right  
Singola presa di forza Ø 24 mm Destra **24▷**

\*Also available with nichel-plated  
\*Disponibile anche con testata nichelata

The flow rate values may vary by ± 5% compared to the production label values.  
I valori di portata possono discostarsi del ± 5% rispetto i valori di targa.

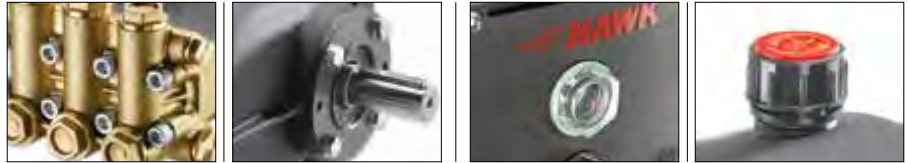
Weight / Peso	<b>Kg</b>	9.5
Oil capacity / Capacità olio	<b>lt.</b>	0.7
Inlet / Entrata	<b>G</b>	1/2"
Outlet / Uscita	<b>G</b>	3/8"



# Standard Pumps - Technical drawings

**NLTI** Series / Serie

NLTI pumps are the ideal product to fit onto machinery that has to cope with high levels of power and pressure. These are usually cleaning machines designed to handle challenging surfaces. The pumps can operate at pressures ranging from 200 to 250 bar and a water temperature of 65°C (149 F), making them ideal for fitting onto systems for cleaning industrial machinery and surfaces, for cleaning transport vehicles capable of handling a strong jet of water, for cleaning pipes, removing old deposits and mortar on walls, getting rid of graffiti and writing on streets, hydro-sandblasting and many other uses. Hawk high pressure pumps are designed for pumping clean water with commonly available detergents.



Part. No. Codice	Flow Rate / Portata				Max Pressure Pressione massima		RPM Giri /Minuto		Max Power / Potenza Massima				Power take-off Prova di forza
	l/min		US GPM		Bar	Psi	50 Hz	60 Hz	HP		Kw		
	50 Hz	60 Hz	50 Hz	60 Hz					50 Hz	60 Hz	50 Hz	60 Hz	
NLT2525IS*	25	30	6.6	7.9	250	3650	1000	1200	16	19.2	11.8	14.2	24 $\boxtimes$ 24
NLT2525ISL*	25	30	6.6	7.9	250	3650			16	19.2	11.8	14.2	$\triangleleft$ 24
NLT2525ISR*	25	30	6.6	7.9	250	3650			16	19.2	11.8	14.2	24 $\triangleright$
NLT1725IL	17	20	4.5	5.4	250	3650	1450	1740	11	13.2	8.1	9.7	$\triangleleft$ 24
NLT1725IR	17	20	4.5	5.4	250	3650			11	13.2	8.1	9.7	24 $\triangleright$
NLT2125IL	21	25	5.6	6.7	250	3650			13.5	16.2	9.9	11.9	$\triangleleft$ 24
NLT2125IR	21	25	5.6	6.7	250	3650			13.5	16.2	9.9	11.9	24 $\triangleright$
NLT2525I*	25	30	6.6	7.9	250	3650			16.1	19.3	11.9	14.3	24 $\boxtimes$ 24
NLT2525IL	25	30	6.6	7.9	250	3650			16.1	19.3	11.9	14.3	24 $\triangleright$
NLT2525IR	25	30	6.6	7.9	250	3650			16.1	19.3	11.9	14.3	$\triangleleft$ 24
NLT3020I	30	36	7.9	9.5	200	2900			15.5	18.6	11.4	13.7	24 $\triangleright$
NLT3020IL	30	36	7.9	9.5	200	2900			15.5	18.6	11.4	13.7	$\triangleleft$ 24
NLT3020IR	30	36	7.9	9.5	200	2900			15.5	18.6	11.4	13.7	24 $\triangleright$

## P.T.O. Reference guide / Legenda prese di forza

Single P.T.O. Ø 24 mm Left  
Singola presa di forza Ø 24 mm Sinistra  $\triangleleft$  24

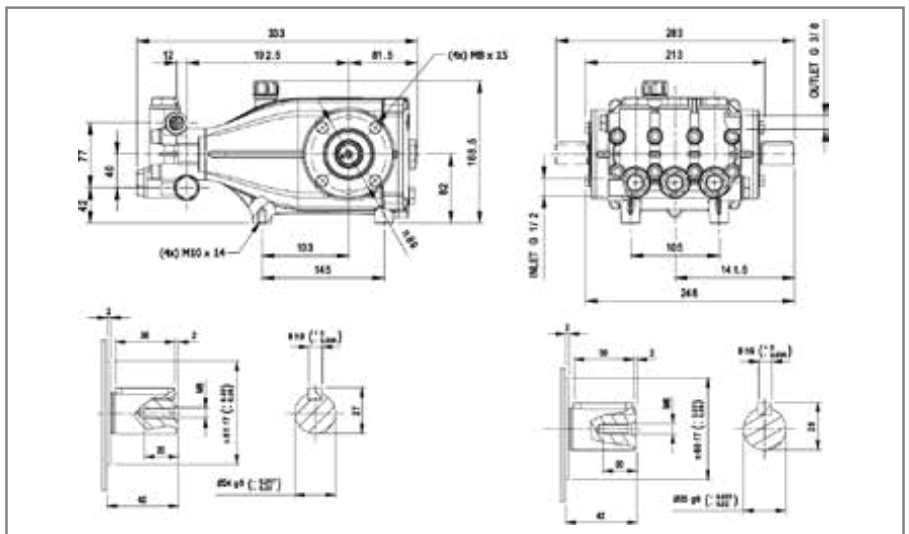
Single P.T.O. Ø 24 mm Right  
Singola presa di forza Ø 24 mm Destra 24  $\triangleright$

Double P.T.O. Ø 24 mm  
Doppia presa di forza Ø 24 mm 24  $\boxtimes$  24

\*Available also with Ø 25 mm shaft  
\*Disponibile anche con albero di Ø 25 mm

The flow rate values may vary by  $\pm$  5% compared to the production label values.  
I valori di portata possono discostarsi del  $\pm$  5% rispetto i valori di targa.

Weight / Peso	Kg	14.8
Oil capacity / Capacità olio	lt.	1.2
Inlet / Entrata	G	1/2"
Outlet / Uscita	G	3/8"



## CHOOSING THE PUMP

Hawk, high-pressure piston pumps are positive displacement pumps.

The main parameters that determine your choice of Hawk pump are volume, pressure, rotation speed and power input. The flow-rate is given in litres per minute and is directly proportional to the rotation speed. The speed of rotation is given as revolutions per minute.

The pressure is given in bars and is the maximum pressure that the pump can reach.

The power input is shown in kW and is the input required for the maximum flow-rate and pressure indicated. When coupled with an electric motor, the power of the motor should be greater than that shown in the catalogue. When coupled with a combustion engine, the power of the engine should be at least 30% more than that shown in the catalogue. The power consumed by the pump in kW is the product of:  $\text{Power} = \text{Volume (l/min)} \times \text{Pressure (bar)} / 520$

## OPERATING AND INSTALLATION INSTRUCTIONS

Hawk pumps are designed and built for the pumping of clean fresh water or water with a low percentage of commonly used detergents, up to a temperature of 65°C. Hawk pumps designed with an AISI 316 stainless steel manifold housing should be used for applications with temperatures up to 85°C, for saltwater applications, for reverse osmosis, and for use in the food, chemical and pharmaceutical industries. Hawk pumps were not designed for pumping potentially hazardous liquids (explosive, toxic and flammable liquids). Contact our technical staff if the application involves the use of harsh chemicals and in case of doubt with regard to any of the points below. To safeguard proper pump operation, the pump should preferably be fed (maximum pressure 8 bar), otherwise it should be located under the water head or at the same level as the tank. Poor supply can cause serious damage to the pump, such as priming problems, vibration, noise and short seal life. Hawk pumps are delivered with their first oil fill and are fitted with a sealed cap to prevent oil spilling during transport. Before starting to use the pump for the first time, do not forget to replace the sealed cap with the cap with the dipstick and bleed.

Warning: Failure to install the pumping system correctly can result in injury or damage to property: it is important to follow all the points below.

- 1) The pump should not be used at higher pressures or speeds of rotation than those shown on the product's specifications plate.
- 2) The pump should be installed horizontally with respect to the base to facilitate optimum lubrication.
- 3) The pump's suction pipe must be proportional to the volume and its diameter must not be less than the suction mouth. It is important that there be as few bottlenecks on this pipe as possible (elbows, T couplings, reductions, etc ...). Each junction on the suction pipe must be sealed properly with Teflon tape or a similar product to avoid leaks or air intake (cavitation). Cavitation is the formation of bubbles of steam in the liquid: their implosion generates abnormal stress which is very damaging for all pump parts. To safeguard optimum pump life, avoid the circulation of liquid containing sand or other solid particles as this affects the efficiency of valves, the plungers and seals. This can be prevented by fitting an oversized filter on the suction pipe with respect to the pump volume. The filter should be cleaned regularly.
- 4) The delivery pipe must be able to support the operating pressure of the pump. Excessively narrow passages can result in lance pressure loss.

5) To prevent injury and damage to the pump, it is vital to fit a pressure control valve and a safety valve to prevent the pressure accidentally exceeding its operating level. Contact our technical staff before fitting these valves. To keep the system pressure under control, a pressure gauge should be fitted on the delivery line with an appropriate bottom scale.

6) Our pumps can be installed in various ways: with pulley drive, direct drive or with flange coupling. An adequate flexible coupling should be used for direct coupling with the electric motor. Make sure the pulleys are aligned if pulley driven; adjust the belt tension and provide adequate safety protection.

Excessive belt tension can cause the oil to overheat and reduce bearing life.

7) Before starting up the pump, make sure the oil is up to level. We recommend the first oil change within the first 50 hours of operation. Subsequent oil changes should take place every 500 hours or more often in case of heavy use. The type of oil used for our pumps is SAE 20/40W.

8) After starting up the pump, aid priming by keeping the delivery line open (lance). Do not let the pump run dry: this can result in rapid seal wear and invalidates the warranty.

9) When using chemicals, run the pump with clean water for several minutes after use. Do not use the pump at low temperatures. To prevent freezing, run the pump dry for about 20 seconds to drain the pipes.

Warning: failure to comply with these operating conditions invalidates the warranty.

## LIMITED WARRANTY

LEUCO S.p.A. guarantees HAWK products have no defect in their construction and materials for a period of (1) year from the time they left the factory. This guarantee is at the discretion of LEUCO S.p.A. and is limited to the repair and replacement of parts or products that it deems defective at the time of delivery. All the products covered by this limited guarantee must be returned freight paid for inspection, repair or replacement by the manufacturer.

This limited warranty is the only form of guarantee and replaces any other form of explicit or implicit warranty, including guarantees of fitness for sale or any particular purpose. The manufacturer refuses any such liability with this statement. Faulty products will only be repaired or replaced according to these terms; LEUCO S.p.A. is not liable for any further loss, damage or expense including accidental or indirect damages caused directly or indirectly from the sale or use of these products. The unauthorised use of spare parts that were not manufactured by LEUCO S.p.A. automatically invalidates this guarantee, which is subject to the instructions for installation and operation here. There are no further guarantees other than the guarantee described above.