HP series oleo pneumatic pumps are born to drive or pressurize all hydraulic devices that don't require a strictly uniform movement.
Its conception makes itself deliver a pulsed hydraulic flow that translates into an irregular movement of any device connected to it.

Les pompes oléopneumatiques de la série HP ont été conçues pour actionner ou mettre sous pression tous les dispositifs hydrauliques qui ne nécessitent pas un mouvement strictement uniforme.
Caractéristiques de la pompe: Leur conception leur permet de fournir un flux hydraulique pulsé, ce qui entraîne un mouvement irrégulier des dispositifs qui y sont connectés.

Le pompe oleopneumatiche della serie HP sono progettate per azionare o pressurizzare tutti i dispositivi idraulici che non richiedono un movimento strettamente uniforme.
Caratteristiche principali: La loro concezione permette di erogare un flusso idraulico pulsato, che si traduce in un movimento irregolare per qualsiasi dispositivo collegato.

TECHNICAL DATA / **DONNÉES TECHNIQUES** / *DATI TECNICI*

Maximum oil viscosity / **Viscosité maximale de l'huile** / *Massima viscosità dell'olio*	10° engler
Maximum oil temperature / **Température maximale de l'huile** / *Temperatura massima dell'olio*	80°C
Ambient temperature / **Température ambiante** / *Temperatura ambiente*	-10 +50°c
Pressure / **Pression** / *Pressione*	100 - 750 bar
Oil filtration rating / **Finesse de filtration de l'huile** / *Grado di filtraggio olio*	60 micron

ORDERING CODE / **CODIFICATION** / *CHIAVE DI CODIFICA*

H	P	1	1	A	1

MOUNTING TYPE / **TYPE DE MONTAGE** / *TIPOLOGIA DI MONTAGGIO*
1= Wall mounting / **Montage mural** / *Montaggio a parete*
2= Immersion mounting / **Montage par immersion** / *Montaggio ad immersione*

COMPRESSION RATIO / **TAUX DE COMPRESSION TAILLE** / *RAPPORTO DI COMPRESSIONE*

	SIZE 1 / **TAILLE 1** / *TAGLIA 1* (80mm)	SIZE 2 / **TAILLE 2** / *TAGLIA 2* (125mm)	SIZE 2 / **TAILLE 2** / *TAGLIA 2* (200mm)
A	64:1	108:1	123:1
B	44:1	79:1	64:1
C	32:1	48:1	48:1
D	25:1	32:1	32:1
E	14:1	25:1	19:1
F		15:1	

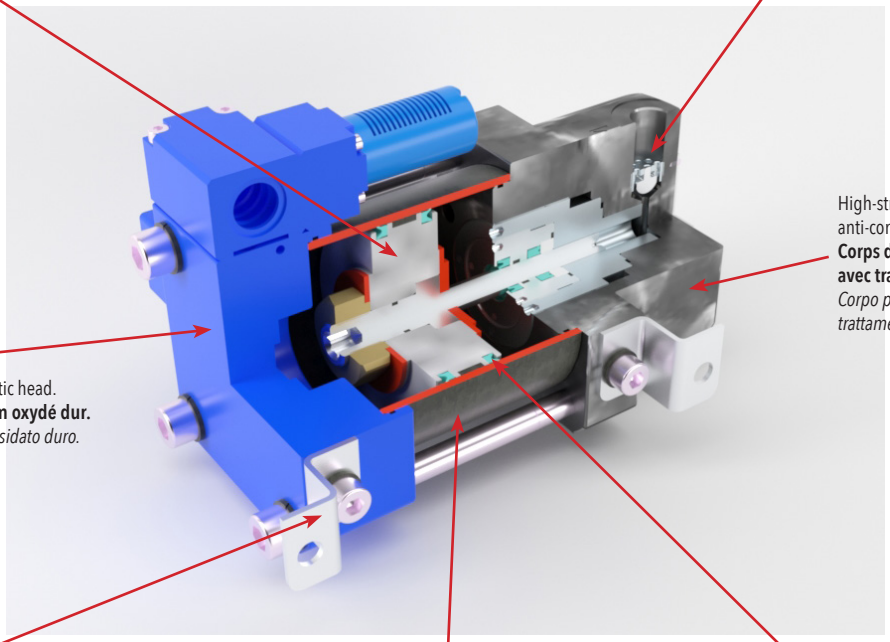
PUMP TYPOLOGY / **TYPOLOGIE DES POMPES** / *TIPOLOGIA DI POMPA*
1= Simple effect / **Simple effet** / *Semplice effetto*
2= Double effect / **Double effet** / *Doppio effetto*

PUMP SIZE / **TAILLE DE LA POMPE** / *TAGLIA POMPA*
1= Pneumatic cylinder bore 80mm / **Vérin pneumatique alésage 80mm** / *Cilindro pneumatico alesaggio 80mm*
2= Pneumatic cylinder bore 125mm / **Vérin pneumatique alésage 125mm** / *Cilindro pneumatico alesaggio 125mm*
3= Pneumatic cylinder bore 200mm / **Vérin pneumatique alésage 200mm** / *Cilindro pneumatico alesaggio 200mm*

THE KEY POINTS / **LES POINTS CLES** / *PUNTI DI FORZA*

Anodized aluminum pneumatic piston.
Piston pneumatique en aluminium anodisé.
Pistone pneumatico in alluminio anodizzato.

High-performance suction and delivery check valves.
Clapets anti-retour haute performance.
Valvole di ritegno in aspirazione e mandata ad alte prestazioni.



High-strength steel pump body with special anti-corrosion treatment.
Corps de pompe en acier haute résistance avec traitement spécial anti-corrosion.
Corpo pompa in acciaio ad alta resistenza con trattamento speciale anti corrosione.

Hard oxidized aluminum pneumatic head.
Tête pneumatique en aluminium oxydé dur.
Testata pneumatica in alluminio ossidato duro.

Galvanized steel brackets for wall or lid mounting.
Supports en acier galvanisé pour montage mural ou sur couvercle.
Staffe in acciaio zincato per il montaggio a parete o su coperchio.

Lapped and chrome-plated steel cylinder.
Cylindre en acier rodé et chromé.
Cilindro in acciaio lappato e cromato.

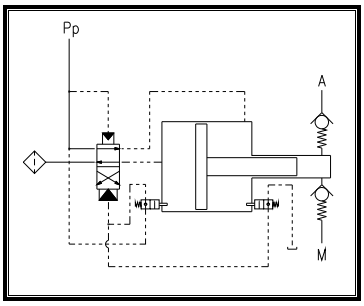
Polyurethane pneumatic seals with anti-friction pads.
Joints pneumatiques en polyuréthane avec patins anti-friction.
Tenute pneumatiche in poliuretano con pattini anti frizione.

OPERATING PRINCIPLE / **PRINCIPE DE FONCTIONNEMENT** / *PRINCIPIO DI FUNZIONAMENTO*

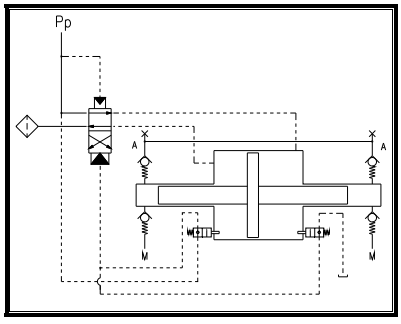
HP series oleo pneumatic pumps use the Pascal principle in which the energy of compressed air moves a large diameter pneumatic piston, and in turn moves an attached smaller diameter hydraulic piston that converts it again into oil pressure.
Values of resultant hydraulic pressure is calculated multiplying the fed pneumatic pressure times the area ratio of the pump (compression ratio).

Les pompes oléopneumatiques de la série HP utilisent le principe de Pascal, où l'énergie de l'air comprimé déplace un piston pneumatique de grand diamètre. Ce dernier, à son tour, actionne un piston hydraulique de plus petit diamètre qui convertit cette force en pression d'huile.
Calcul de la Pression Hydraulique:
La pression hydraulique résultante est calculée en multipliant la pression pneumatique fournie par le rapport de surface de la pompe (appelé rapport de compression).).

Le pompe oleopneumatiche della serie HP utilizzano il principio di Pascal, dove l'energia dell'aria compressa sposta un pistone pneumatico di grande diametro. Questo, a sua volta, muove un pistone idraulico di diametro più piccolo che converte l'energia in pressione d'olio.
Calcolo della Pressione Idraulica:
La pressione idraulica risultante si calcola moltiplicando la pressione pneumatica in ingresso per il rapporto di compressione (o rapporto tra le aree) della pompa.



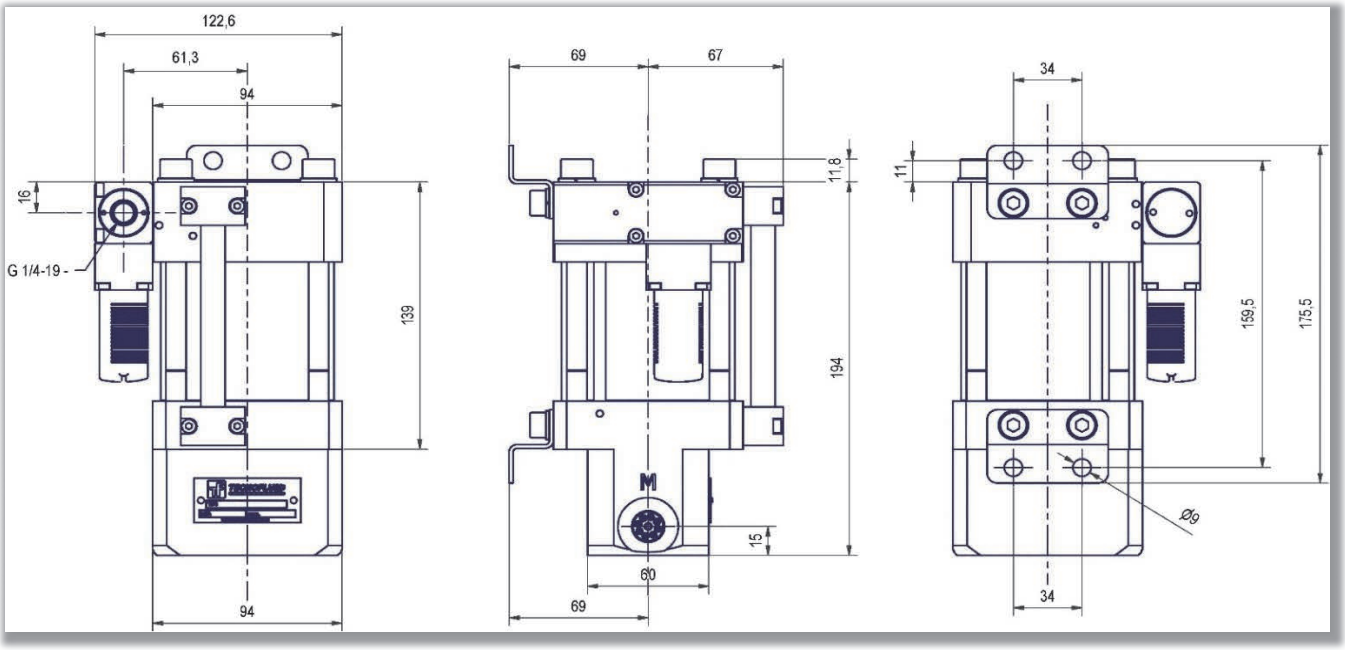
Single Action Pump Working Diagram.
Schéma de fonctionnement d'une pompe à simple effet.
Schema di funzionamento di una pompa a sempliceeffetto.



Double Action Pump Working Diagram.
Schéma de fonctionnement d'une pompe à double effet.
Schema di funzionamento di una pompa a doppio effetto.

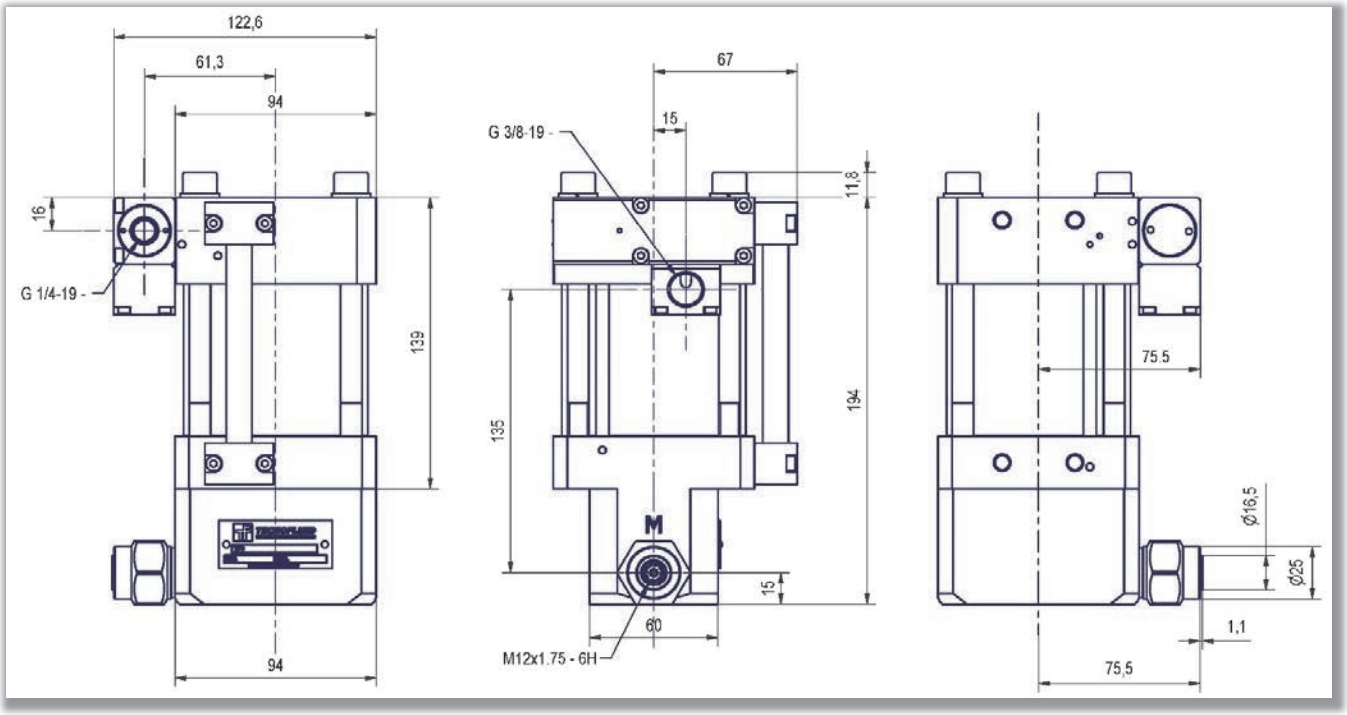
AIR-DRIVEN PUMPS, SIZE 1, SIMPLE EFFECT, WALL-MOUNTED
POMPES OLÉOPNEUMATIQUES, TAILLE 1, SIMPLE EFFET, MONTAGE MURAL
POMPE OLEOPNEUMATICHE , TAGLIA 1 , SEMPLICE EFFETTO, MONTAGGIO A PARETE

CODE: HP11*1



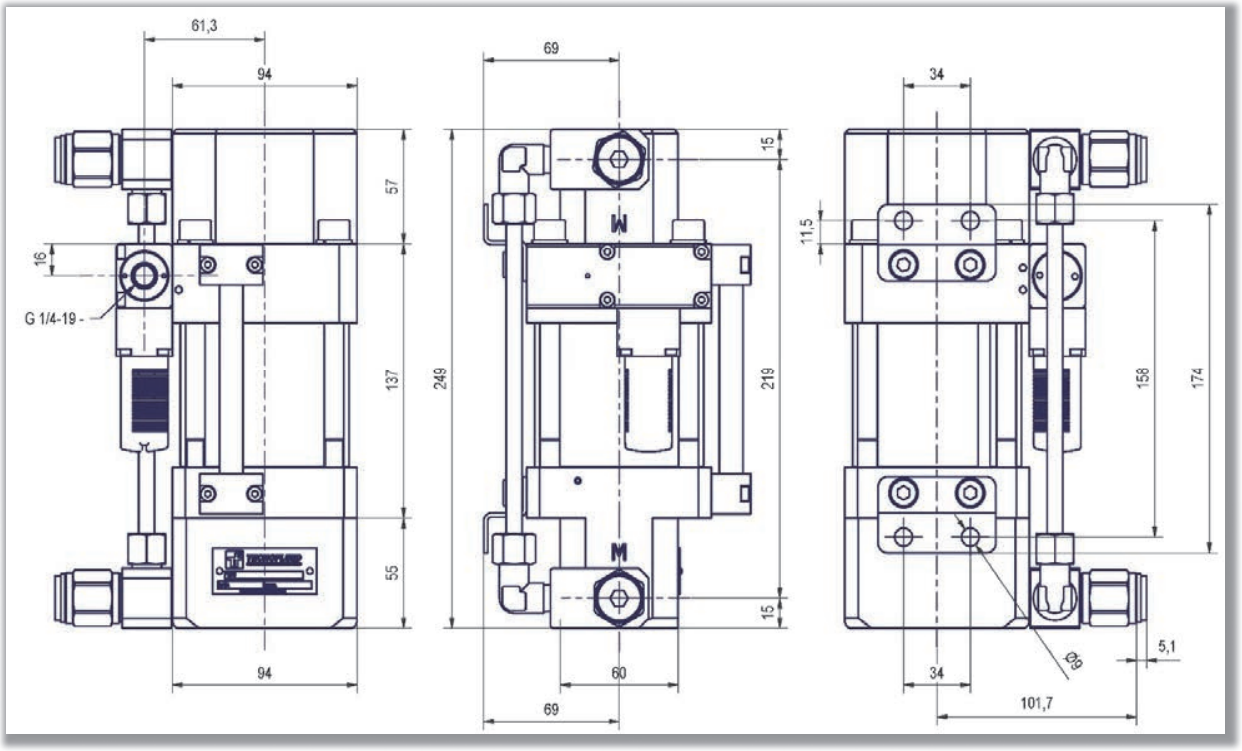
AIR-DRIVEN PUMPS, SIZE 1, SIMPLE EFFECT, IMMERSION MOUNTING
POMPES OLÉOPNEUMATIQUES, TAILLE 1, SIMPLE EFFET, MONTAGE PAR IMMERSION
POMPE OLEOPNEUMATICHE , TAGLIA 1 , SEMPLICE EFFETTO , MONTAGGIO AD IMMERSIONE

CODE: HP11*2



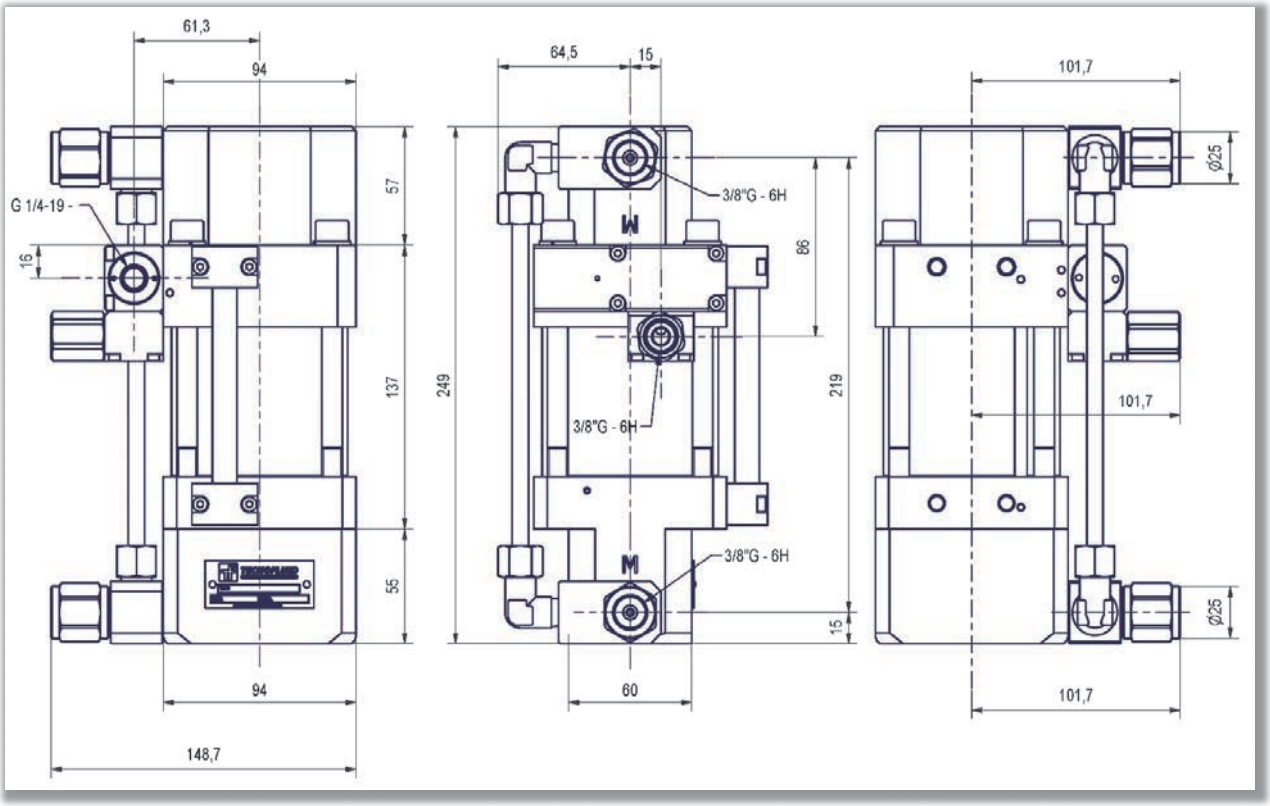
AIR-DRIVEN PUMPS, SIZE 1, DOUBLE EFFECT, WALL-MOUNTED
POMPES OLÉOPNEUMATIQUES, TAILLE 1, DOUBLE EFFET, MONTAGE MURAL
POMPE OLEOPNEUMATICHE , TAGLIA 1 , DOPPIO EFFETTO, MONTAGGIO A PARETE

CODE: HP12*1



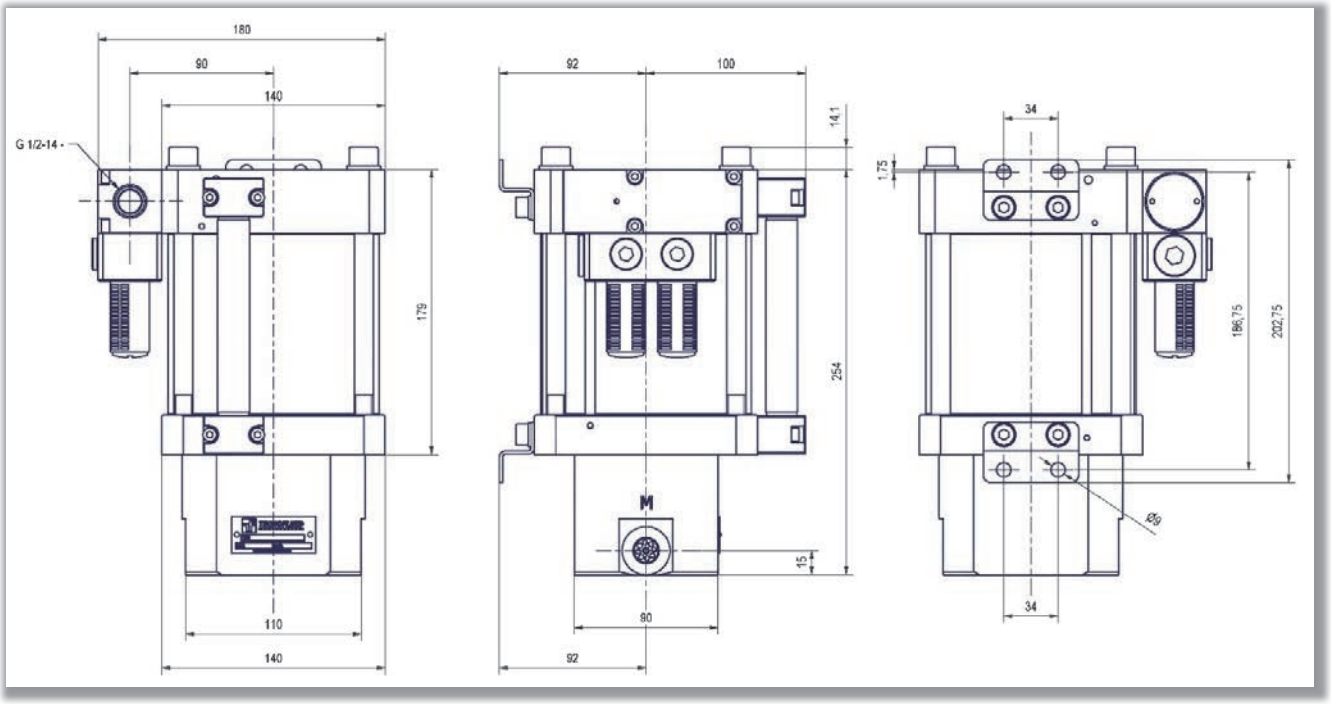
AIR-DRIVEN PUMPS, SIZE 1, DOUBLE EFFECT, IMMERSION MOUNTING
POMPES OLÉOPNEUMATIQUES, TAILLE 1, DOUBLE EFFET, MONTAGE PAR IMMERSION
POMPE OLEOPNEUMATICHE , TAGLIA 1 , DOPPIO EFFETTO, MONTAGGIO AD IMMERSIONE

CODE: HP12*2



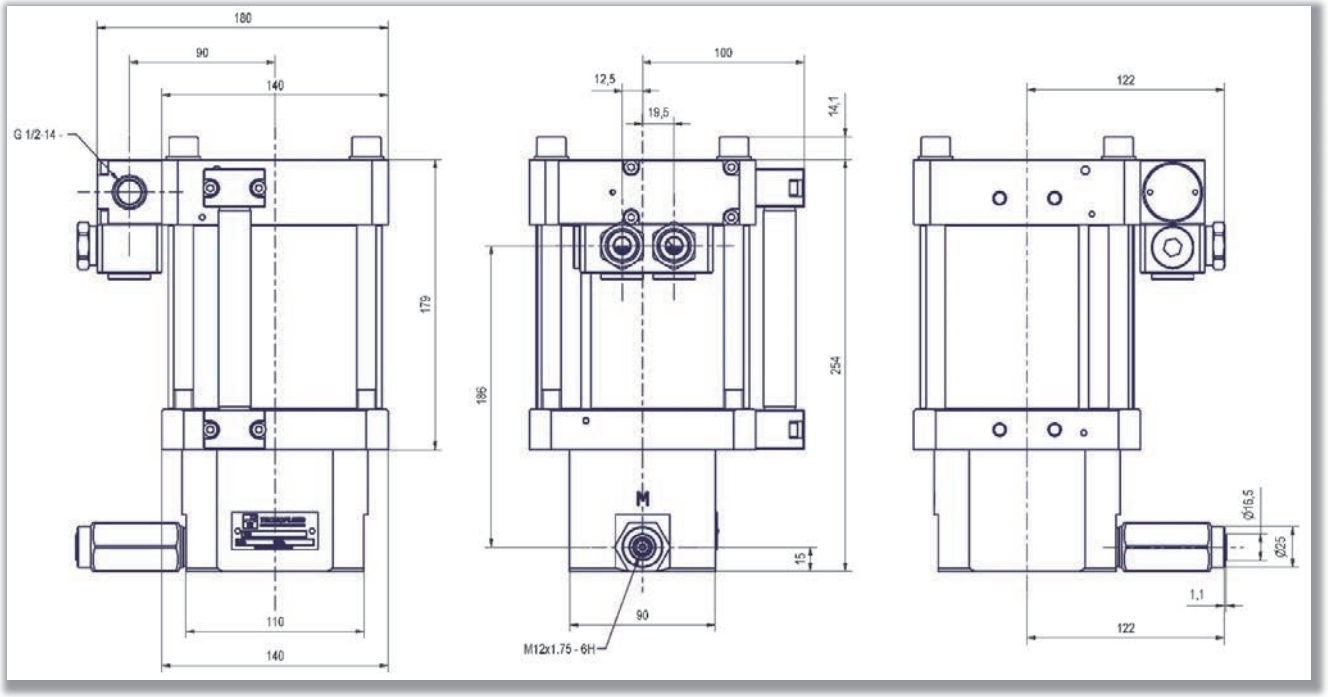
AIR-DRIVEN PUMPS, SIZE 2, SIMPLE EFFECT, WALL-MOUNTED
POMPES OLÉOPNEUMATIQUES, TAILLE 2, SIMPLE EFFET, MONTAGE MURAL
POMPE OLEOPNEUMATICHE , TAGLIA 2 , SEMPLICE EFFETTO, MONTAGGIO A PARETE

CODE: HP21*1



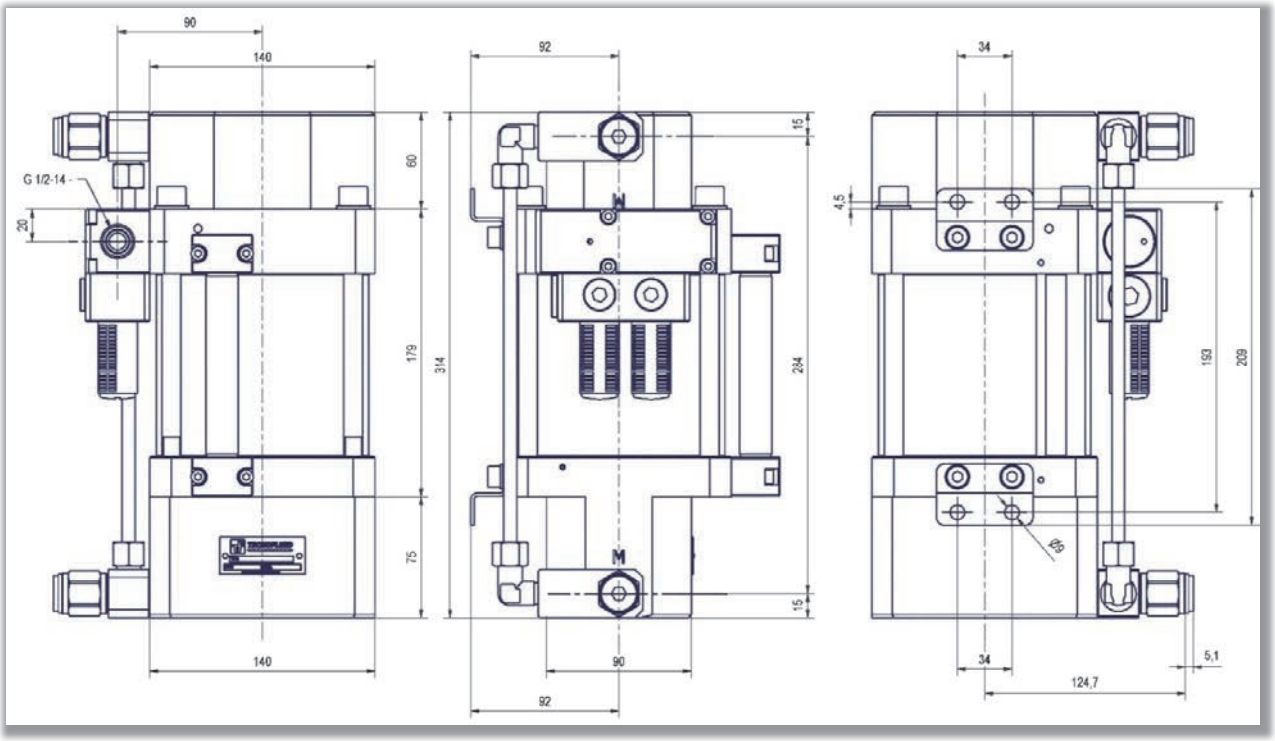
AIR-DRIVEN PUMPS, SIZE 2, SIMPLE EFFECT, IMMERSION MOUNTING
POMPES OLÉOPNEUMATIQUES, TAILLE 2, SIMPLE EFFET, MONTAGE PAR IMMERSION
POMPE OLEOPNEUMATICHE , TAGLIA 2 , SEMPLICE EFFETTO , MONTAGGIO AD IMMERSIONE

CODE: HP21*2



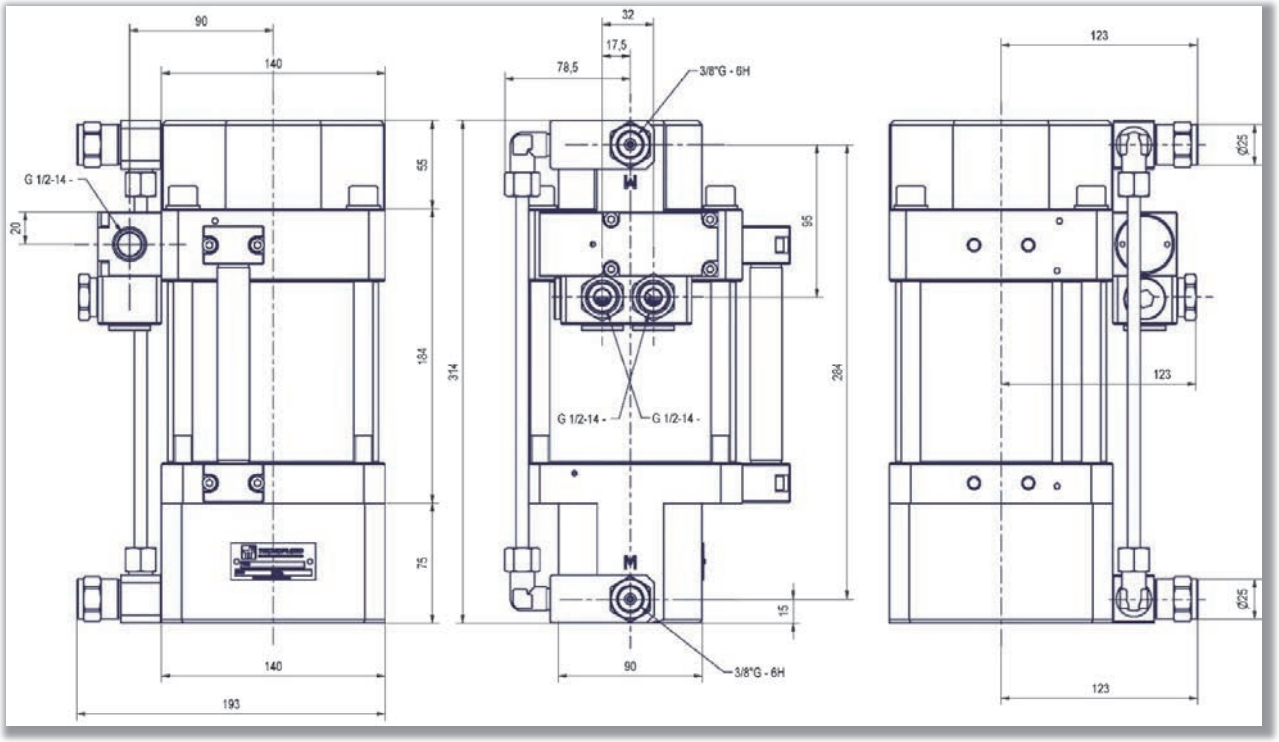
AIR-DRIVEN PUMPS, SIZE 2, DOUBLE EFFECT, WALL-MOUNTED
POMPES OLÉOPNEUMATIQUES, TAILLE 2, DOUBLE EFFET, MONTAGE MURAL
POMPE OLEOPNEUMATICHE , TAGLIA 2 , DOPPIO EFFETTO, MONTAGGIO A PARETE

CODE: HP22*1



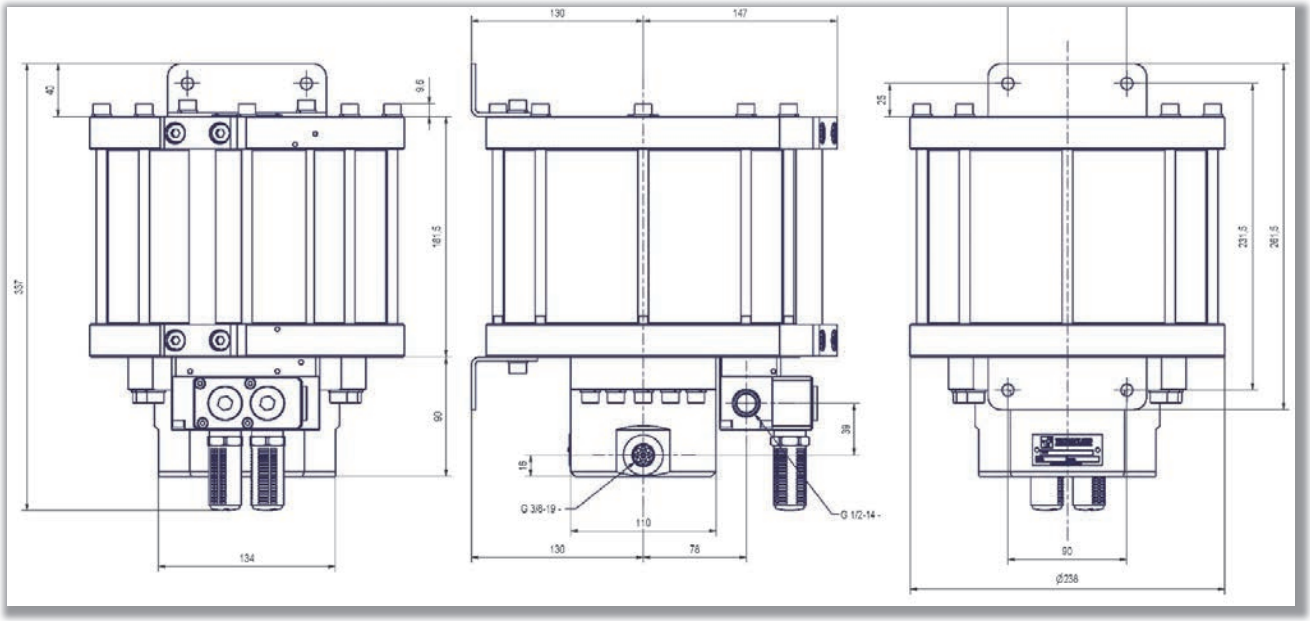
AIR-DRIVEN PUMPS, SIZE 2, DOUBLE EFFECT, IMMERSION MOUNTING
POMPES OLÉOPNEUMATIQUES, TAILLE 2, DOUBLE EFFET, MONTAGE PAR IMMERSION
POMPE OLEOPNEUMATICHE , TAGLIA 2 , DOPPIO EFFETTO, MONTAGGIO AD IMMERSIONE

CODE: HP22*2



AIR-DRIVEN PUMPS, SIZE 3, SIMPLE EFFECT, WALL-MOUNTED
POMPES OLÉOPNEUMATIQUES, TAILLE 3, SIMPLE EFFET, MONTAGE MURAL
POMPE OLEOPNEUMATICHE , TAGLIA 3 , SEMPLICE EFFETTO, MONTAGGIO A PARETE

CODE: HP31*1



AIR-DRIVEN PUMPS, SIZE 3, DOUBLE EFFECT, WALL-MOUNTED
POMPES OLÉOPNEUMATIQUES, TAILLE 3, DOUBLE EFFET, MONTAGE MURAL
POMPE OLEOPNEUMATICHE , TAGLIA 3 , DOPPIO EFFETTO, MONTAGGIO A PARETE

CODE: HP32*1