

# BALLAST

3500 - 4500 - 6000 - 7500  
9000 - 11000 - 13500

Technical catalogue  
Catalogo tecnico  
Technischer Katalog



Battioni®  
Pagani

*Setting the pace since 1953*

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**Battioni®  
Pagani**

*Setting the pace since 1953*

**Kit Aluminum Final Air Filter**

Kit filtro aria alluminio  
Saugfilter Satz

**Predisposition for overpressure valve**

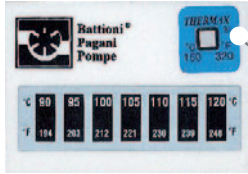
Predisposizione per valvola di sovrappressione  
Vorbereitung für Überdruckventil

**Forced lubrication pump as standard (automatic lubrication on request)**

Pompa di lubrificazione forzata di serie (lubrificazione automatica a richiesta)  
Druckschmierung als Serie (Automatische Schmierung auf Anfrage)

**Temperature indicator**

Rilevatore di temperatura  
Temperaturdedektor

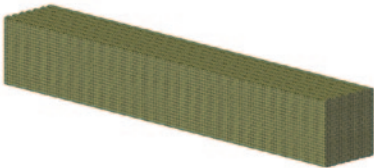


**160° C Irreversible indicator**

Indicatore Irreversibile 160° C  
irreversibel Anzeiger 160°C

**Nr. 8 Long Life Blades as standard**

**Heat-resistant blades of special material as standard**  
Nr.8 Palette "long life" resistenti al calore di serie  
Nr. 8 Hitzebeständigen Lamellen aus Spezialmaterial als Serie



**Extend Oil level indicator**

Indicatore livello olio esterno  
Ölstandsanzeige

**Air injection cooling**

Iniezione aria di raffreddamento  
Injektion der Luftkühlung



**AIR INJECTION  
COOLED - ROTARY  
VANES VACUUM/  
PRESSURE PUMP**





3500 - 4500 - 6000 - 7500 - 9000 - 11000 - 13500

● **Selector vacuum - pressure**  
Selettore Vuoto - Pressione  
Wähler von Vakuum/Druck



● **CRASH PROTECTION SYSTEM**

**Sliding Flanges to avoid breakages of the body and rotor during vanes crashes**

Flange con asole di scorrimento in caso di ingresso materiale o rottura palette  
Flansche mit Slotsblättern falls Materialschmierung oder Palettenbruch



**Flange-housing alignment control**

Tacca di allineamento flangia - corpo  
Ausrichtmarke der Flanschgehäuse

● **Blades inspection hole**

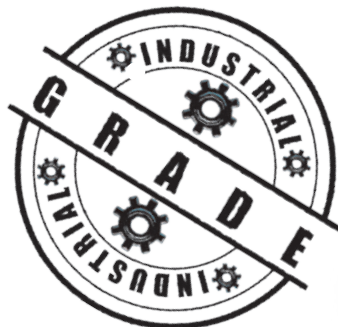
Foro ispezione palette  
Bohrung für Lamellen Prüfung

**Vanes inspection hole with max wearing indicator**

Tacca per rilevamento usura palette  
Ausrichtmarke für die Abnutzung der Palette



● **Compression and thrust rings for bearings**  
Anello di compensazione  
Ausgleichsring



## VERSIONS



BALLAST - M/MA



BALLAST - P



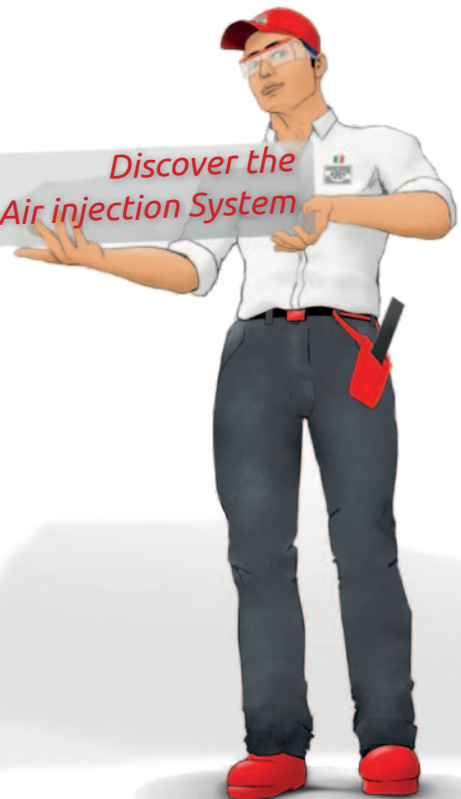
BALLAST - D



BALLAST - H

Air injection cooled -  
Rotary Vanes Vacuum/  
Pressure pump

Discover the  
Air injection System



The picture is only for informative purpose.  
See the table on page 81 for the complete list of the available optionals.



# BALLAST

3500 - 4500 - 6000 - 7500

## BALLAST – Built to last

The BALLAST pump represents a technology breakthrough resulted from a major joint effort in product development and innovative design processes.

The BALLAST features the **Crash Protection System**: a sliding flanges protection mechanism that prevents the housing or rotor to break of in case of vanes crash. The pump is easily repairable inexpensively in field. The BALLAST II pump is equipped with the latest automatic **air injection cooling system** to enable continuous operation at 70% range of vacuum.

The BALLAST is the ideal pump for heavy duty applications.



## STANDARD FEATURES

- Long Life Blades, Crash Protection System, forced lubrication, external oil level indicator, side outlets, exhaust elbows, 4-ways valve, check valve
- Thread for Overpressure valve: G 1"1/2
- Available hoses connections: Ø 45 mm / Ø 60 mm / Ø 76 mm (3") / Ø 80 mm

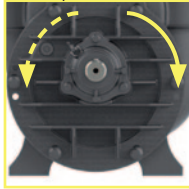
## VERSIONS

CCW as standard



**Version M**  
Splined shaft  
1"3/8 - Z6 ISO 500

CCW on request CW as standard



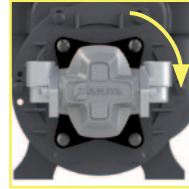
**Version P**  
Smooth Cylindrical shaft,  
Ø 32, lenght 63 mm  
Parallel key UNI 6604

CCW as standard



**Version D**  
Splined shaft  
1"3/8 - Z6 ISO 500

CW as standard



**Version H**  
**BALLAST 3500:** Group 3 26.7 cc/rev - Pmax 280 bar - In G 1" - Out G 3/4"  
**BALLAST 4500:** Group 3.5 43.98 cc/rev - Pmax 250 bar - In G 1" - Out G 1"  
**BALLAST 6000:** Group 3.5 43.98 cc/rev - Pmax 250 bar - In G 1" - Out G 1"  
**BALLAST 7500:** Group 3.5 51.83 cc/rev - Pmax 230 bar - In G 1" - Out G 1"

## TECHNICAL DATA

|              | Geometrical capacity |       |     | Max rpm |       | Max abs pressure<br>Bar/PSI | Max vacuum %<br>(inHg) | Max continuous vacuum %<br>(inHg) | Power at max vacuum<br>kW (HP) | Weight kg |     |     |     |
|--------------|----------------------|-------|-----|---------|-------|-----------------------------|------------------------|-----------------------------------|--------------------------------|-----------|-----|-----|-----|
|              | m <sup>3</sup> /h    | l/min | cfm | M       | P/D/H |                             |                        |                                   |                                | M         | P   | D   | H   |
| BALLAST 3500 | 217,3                | 3621  | 128 | 540     | 1400  | 2,5 (36)                    | 92% (27,2")            | 70% (21")                         | 8 (10,7)                       | 101       | 86  | 87  | 88  |
| BALLAST 4500 | 275,6                | 4593  | 162 | 540     | 1400  | 2,5 (36)                    | 92% (27,2")            | 70% (21")                         | 10 (13,4)                      | 111       | 96  | 97  | 98  |
| BALLAST 6000 | 371,0                | 6183  | 218 | 540     | 1400  | 2,5 (36)                    | 94% (28,0")            | 70% (21")                         | 12 (16,1)                      | 126       | 111 | 112 | 113 |
| BALLAST 7500 | 455,8                | 7596  | 268 | 540     | 1400  | 2,5 (36)                    | 94% (28,0")            | 70% (21")                         | 14 (18,8)                      | 144       | 129 | 130 | 131 |

## OPTIONALS



**Automatic Lubrication**  
Double lubrication points



**EN 707 Lever**  
Code 6080200299



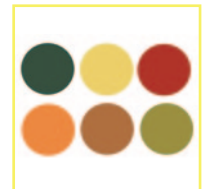
**Hydraulic Changeover**  
Code 6080200303



**Pneumatic Revolving Changeover**  
Code 6080200302



**Battioni Vacuum Pump Oil**  
Code 5070200100




**Customized Painting**



## ACCESSORIES


Air injection cooled -  
Rotary Vanes Vacuum/  
Pressure pump

**01**

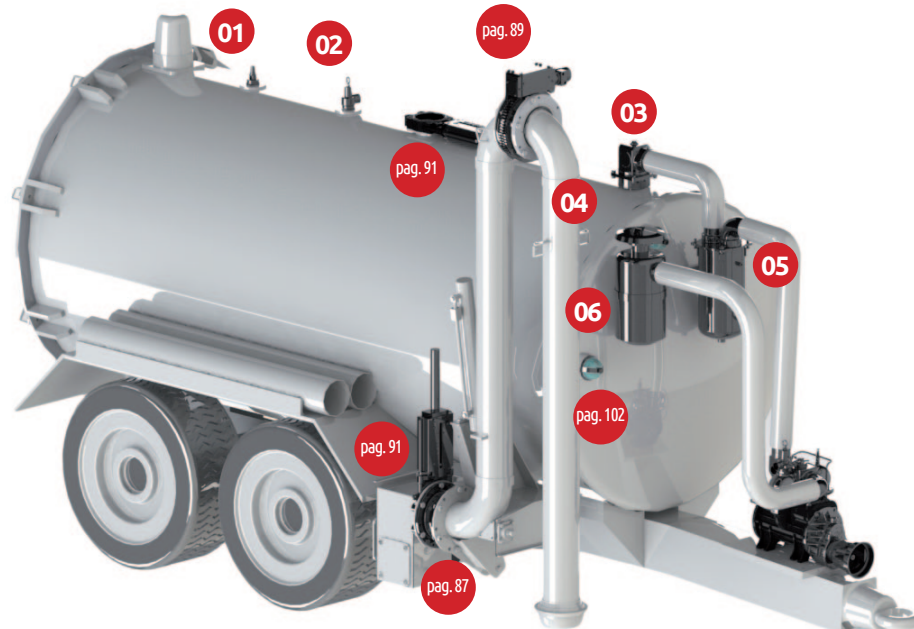


**Vacuum Relief Valve  
1"1/2**  
Code 5100200012  
Setting range:  
-0,3 bar / -0,8 bar  
Working temperature:  
-20°C / +90°C  
Thread: G 1"1/2  
Weight: 0,65 kg

**02**




**Overpressure Safety  
Valve - 1"1/2**  
Code 5100200010  
Setting range:  
+0,3 bar / +1,5 bar  
Working temperature:  
-20°C / +90°C  
Thread: G 1"1/2  
Weight: 1,02 kg



Tank with side pipe

**06**




**Filter - Silencer**  
Code 5090000083  
MEC 3500-4500  
Code 5090000044  
MEC 6000-7500  
Hose connection:  
Ø 60-80 mm  
Weight: 4-7 kg

**04A**



**Rain Cap**  
Code 5090000060  
MEC 3500-4500  
Code 5090000061  
MEC 6000-7500  
Weight: 0,3/0,4 kg

**04B**



**Pre-Filter**  
Code 5090000045  
MEC 3500-4500  
Code 5090000046  
MEC 6000-7500  
Weight: 0,6/1,1 kg

**03**




**Primary Overflow  
Valve - Single Rubber  
Ball**  
Code 6100200006 - Ø 45  
Code 6100200007 - Ø 60  
Code 6100200008 - Ø 80  
Iron ring to be welded  
Weight: 4,7/9,6 kg

**05**



**Secondary Valve -  
Single Rubber Ball**  
Code 6100200003 - Ø 45  
Code 6100200004 - Ø 60  
Code 6100200005 - Ø 80  
Weight: 18,5/20,5 kg

**05A**



**Discharge Valve - 3/4"**  
Code 5040200006  
To be fitted on Secondary  
valve

**05B**



**Gauge - Ø 80 mm Axial  
Connection**  
Code 5101700007  
To be fitted on Secondary  
valve





# BALLAST

9000 - 11000 - 13500

## BALLAST – Built to last

The BALLAST pump represents a technology breakthrough resulted from a major joint effort in product development and innovative design processes.

The BALLAST features the **Crash Protection System**: a sliding flanges protection mechanism that prevents the housing or rotor to break of in case of vanes crash. The pump is easily repairable inexpensively in field. The BALLAST II pump is equipped with the latest automatic **air injection cooling system** to enable continuous operation at 70% range of vacuum.

The BALLAST is the ideal pump for heavy duty applications.

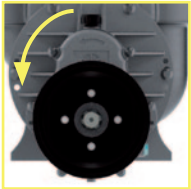


## STANDARD FEATURES

- Long Life Blades, Crash Protection System, forced lubrication, external oil level indicator, side outlets, exhaust elbows, 4-ways valve, check valve
- Thread for Overpressure valve: G 2"
- Available hoses connections: Ø 76 mm (3") / Ø 80 mm / Ø 100 mm (4")

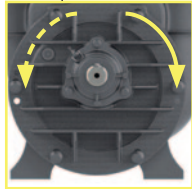
## VERSIONS

CCW as standard



**Version M - MA**  
Splined shaft  
1"3/8 - Z6 ISO 500

CCW on request CW as standard



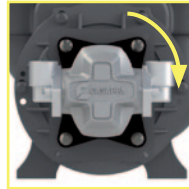
**Version P**  
Smooth Cylindrical shaft,  
Ø 32, lenght 63 mm  
Parallel key UNI 6604

CCW as standard



**Version D**  
Splined shaft  
1"3/8 - Z6 ISO 500

CW as standard



**Version H**  
**MEC 9000:** Group 3.5 51.83 cc/rev - Pmax 230 bar - In G 1" - Out G 1"  
**MEC 11000:** Group 3.5 73.82 cc/rev - Pmax 180 bar - In G 1" - Out G 1"1/4  
**MEC 13500:** Group 4 86.56 cc/rev - Pmax 280 bar - In G 1"1/4 - Out G 1"1/2

## TECHNICAL DATA

|               | Geometrical capacity |       |     | Max rpm |      |       | Max abs pressure<br>Bar/PSI | Max vacuum %<br>(inHg) | Max continuous vacuum %<br>(inHg) | Power at max vacuum<br>kW (HP) | Weight kg |     |     |     |
|---------------|----------------------|-------|-----|---------|------|-------|-----------------------------|------------------------|-----------------------------------|--------------------------------|-----------|-----|-----|-----|
|               | m³/h                 | l/min | cfm | M       | MA   | P/D/H |                             |                        |                                   |                                | M/MA      | P   | D   | H   |
| BALLAST 9000  | 541,8                | 9030  | 319 | 600     | 1000 | 1400  | 2,5 (36)                    | 95% (28,5")            | 70% (21")                         | 17 (22,8)                      | 145       | 131 | 132 | 140 |
| BALLAST 11000 | 668,22               | 11137 | 393 | 600     | 1000 | 1400  | 2,5 (36)                    | 95% (28,5")            | 70% (21")                         | 21 (28,2)                      | 160       | 146 | 147 | 155 |
| BALLAST 13500 | 830,7                | 13845 | 489 | 600     | 1000 | 1400  | 2,5 (36)                    | 95% (28,5")            | 70% (21")                         | 25 (33,5)                      | 178       | 164 | 165 | 173 |

## OPTIONALS



**Automatic Lubrication**  
Double lubrication points



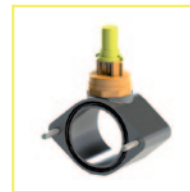
**Kit Aluminum Final Air Filter 1300**  
Code 6080200290



**Side Outlet With Two Revolving Elbows**



**Double Outlet**  
Ø 80 mm



**Kit Vacuum Relief Valve For Revolving Elbow**  
Code 6080200181



**Extra Side Tank**  
Code 6080200304 (LA)  
Code 6080200310 (LF)



**EN 707 Lever**  
Code 6080200173



**Hydraulic Changeover**  
Code 6080200176



**Hydraulic Revolving Changeover**  
Code 509000078



**Pneumatic Revolving Changeover**  
Code 6080200238



**Pneumatic Revolving Changeover - 3 Positions**  
Code 6080200293



**Customized Painting**




## ACCESSORIES

Air injection cooled -  
Rotary Vanes Vacuum/  
Pressure pump

**01**

**Vacuum Relief Valve  
1 1/2"**


Code 5100200012  
Setting range:  
-0,3 bar / -0,8 bar  
Working temperature:  
-20°C / +90°C  
Thread: G 1 1/2  
Weight: 0,65 kg



**02**

**Overpressure Safety  
Valve - 2"**

Code 5100200011  
Setting range:  
+0,3 bar / +1,5 bar  
Working temperature:  
-20°C / +90°C  
Thread: G 2"  
Weight: 1,02 kg



**06**

**Filter - Silencer**

Code 5090000025  
BALLAST 9000-11000  
Code 5090000026  
BALLAST 13500  
Hose connection:  
Ø 80/100 mm  
Weight: 9,5/13 kg



**04A**

**Rain Cap**

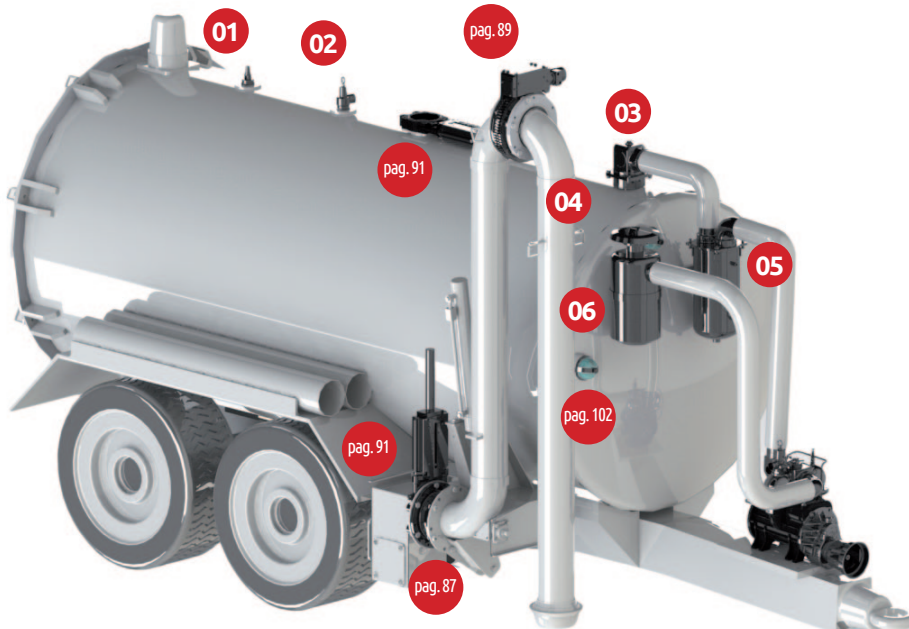
Code 5090000061  
BALLAST 9000-11000  
Code 5090000062  
BALLAST 13500  
Weight: 0,4 kg



**04B**

**Pre-Filter**

Code 5090000046  
BALLAST 9000-11000  
Code 5090000047  
BALLAST 13500





Tank with side pipe

**03A**

**Primary Overflow  
Valve - Two Balls**


Code 6100200030 - Ø 76  
Code 6100200025 - Ø 80  
Code 6100200026 - Ø 100  
Iron ring to be welded  
Weight: 13,9/14,0 kg



**03B**

**Primary Overflow  
Valve - One SS Ball**


Code 6100200027 -  
Ø 80 SS  
Code 6100200028 -  
Ø 100SS  
Ball material: AISI 316  
Iron ring to be welded



**05**

**Secondary Valve - Two  
Balls**

Code 6100200035 - Ø 76  
Code 6100200021 - Ø 80  
Code 6100200022 - Ø 100  
Weight: 35,6/20,5 kg



**05A**

**Discharge Valve - 1"**

Code 5040200014  
To be fitted on Secondary  
valve



**05B**

**Gauge - Ø 80 mm Axial  
Connection**

Code 5101700007  
To be fitted on Secondary  
valve

