



Italian Excellence  
In Fire Protection Technology



**MALECO**, young and dynamic company, employs highly qualified staff with many years of experience from leading companies of fire-fighting field.

**MALECO** offers services and solutions on time and accurate, facing all kinds of questions about the **DESIGN AND CONSTRUCTION OF FIRE-FIGHTING CENTRIFUGAL PUMPS, TRAILED MOTORPUMP, SKID MOTORPUMPS, FIRE-FIGHTING EQUIPMENTS ON VEHICLES, TRAILERS, BOATS AND FIRE-FIGHTING TOOLS.**



Italian Excellence  
In Fire Protection  
Technology

The ability to engage and solve various and complex issues guarantees the full satisfaction of our customers. Our operational capacity and our plury-years kown-how let us to carry out with extreme solicitude customer demands while minimizing implementation times.

Our services are mainly oriented to: **National Fire Corps, Ministries, Civil Protection, Forest Rangers, Volunteer Fire Associations, Mountain Communities, Regional, Provincial and Municipal Administrations, Private Companies, Refineries and Individual Users.**

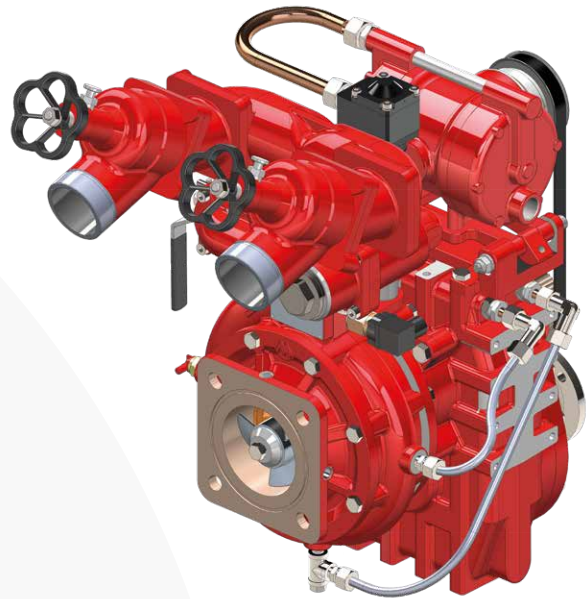


# WHEN THE FIREPUMP IS ART !

**MALECO** with the new range "**NIAGARA SERIES**" sets new benchmarks in the specific field of fire-fighting centrifugal pumps.

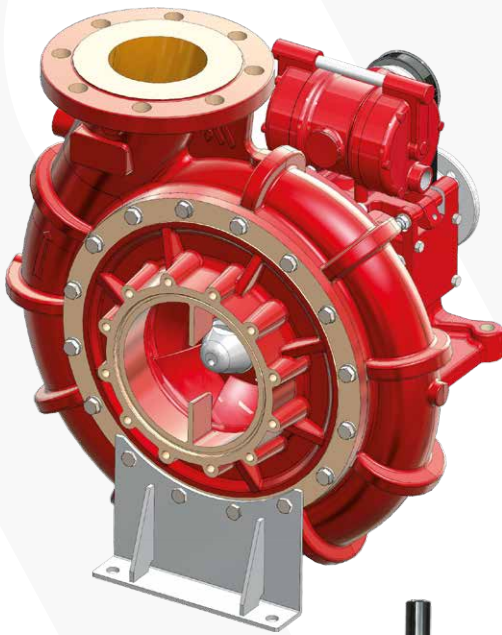
The advanced study of internal fluid dynamics the compact and lightweight design, the high performances rank the fire pumps **NIAGARA SERIES** at the top of its category.

Able to operate in any environment and climatic condition and subjected to stringent tests MALECO



pumps "**NIAGARA SERIES**" can be used wherever the highest efficiency in harsh working conditions.

The wide range of flow rates, the possibility of adopting different priming systems and the possibility to have the pumps' gearbox version, together with the high modularity that distinguishes them, give at the "**NIAGARA SERIES**" pumps the potential to be used on any mobile or fixed support in both airport and naval environments.





For all the pumps' technical specifications and optional see our new website

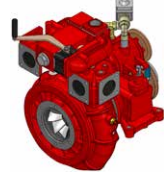
[www.maleco-firefightingpumps.it](http://www.maleco-firefightingpumps.it)


THE RANGE OF FIRE – FIGHTING PUMPS "**NIAGARA**"

### BALL BEARING BOX VERSION


SINGLE STAGE MEDIUM PRESSURE WATER RING PRIMING	PUMP MODEL	MATERIAL		SUCTION			M.P. STAGE		H.P. STAGE	
				Ø Suct. (inch)	Ø Suct. (mm)	Suct. Height (mt)	Flow Rate (lpm)	Pressure (bar)	Flow Rate (lpm)	Pressure (bar)
	NIAGARA M20.10	ALU	BRO	4"	100	3	2000	10 - 15	N/A	N/A
	NIAGARA M30.10	ALU	BRO	5"	125	3	3000	10 - 15	N/A	N/A
	NIAGARA M40.10	ALU	BRO	6"	150	3	4000	10 - 15	N/A	N/A
	NIAGARA M50.10	ALU	BRO	8"	200	3	5000	10 - 15	N/A	N/A
	NIAGARA M60.10	ALU	BRO	8"	200	3	6000	10 - 15	N/A	N/A
	NIAGARA M65.10	ALU	BRO	8"	200	3	6500	10 - 15	N/A	N/A

SINGLE STAGE MEDIUM PRESSURE PISTON PRIMING	PUMP MODEL	MATERIAL		SUCTION			M.P. STAGE		H.P. STAGE	
				Ø Suct. (inch)	Ø Suct. (mm)	Suct. Height (mt)	Flow Rate (lpm)	Pressure (bar)	Flow Rate (lpm)	Pressure (bar)
	NIAGARA M20.10	ALU	BRO	4"	100	3	2000	10 - 15	N/A	N/A
	NIAGARA M30.10	ALU	BRO	5"	125	3	3000	10 - 15	N/A	N/A
	NIAGARA M40.10	ALU	BRO	6"	150	3	4000	10 - 15	N/A	N/A
	NIAGARA M50.10	ALU	BRO	8"	200	3	5000	10 - 15	N/A	N/A
	NIAGARA M60.10	ALU	BRO	8"	200	3	6000	10 - 15	N/A	N/A
	NIAGARA M65.10	ALU	BRO	8"	200	3	6500	10 - 15	N/A	N/A

DOUBLE STAGE MEDIUM/HIGH PRESSURE WATER RING PRIMING	PUMP MODEL	MATERIAL		SUCTION			M.P. STAGE		H.P. STAGE	
				Ø Suct. (inch)	Ø Suct. (mm)	Suct. Height (mt)	Flow Rate (lpm)	Pressure (bar)	Flow Rate (lpm)	Pressure (bar)
	NIAGARA C20.10	ALU	BRO	4"	100	3	2000	10 - 15	400	40
	NIAGARA C30.10	ALU	BRO	5"	125	3	3000	10 - 15	400	40
	NIAGARA C40.10	ALU	BRO	6"	150	3	4000	10 - 15	400	40
	NIAGARA C50.10	ALU	BRO	8"	200	3	5000	10 - 15	400	40
	NIAGARA C60.10	ALU	BRO	8"	200	3	6000	10 - 15	400	40
	NIAGARA C65.10	ALU	BRO	8"	200	3	6500	10 - 15	400	40


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				Ø Suct. (inch)	Ø Suct. (mm)	Suct. Height (mt)	Flow Rate (lpm)	Pressure (bar)	Flow Rate (lpm)	Pressure (bar)
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	NIAGARA C30.10	ALU	BRO	5"	125	3	3000	10 - 15	400	40
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	NIAGARA C50.10	ALU	BRO	8"	200	3	5000	10 - 15	400	40
	NIAGARA C60.10	ALU	BRO	8"	200	3	6000	10 - 15	400	40
	NIAGARA C65.10	ALU	BRO	8"	200	3	6500	10 - 15	400	40


### NIAGARA-M10K FIRE FIGHTING PUMPS SERIES


SINGLE STAGE MEDIUM PRESSURE PISTON PRIMING	PUMP MODEL	MATERIAL	FLOW RATE (LPM)	PRESSURE (BAR)
	NIAGARA_M10K	BRONZE	10.000	10


# NIAGARA FIRE FIGHTING PUMPS SERIES

## GEARBOX VERSIONS



SINGLE STAGE MEDIUM PRESSURE WATER RING PRIMING	PUMP MODEL	MATERIAL		SUCTION			M.P. STAGE		H.P. STAGE	
				Ø Suct. (inch)	Ø Suct. (mm)	Suct. Height (mt)	Flow Rate (lpm)	Pressure (bar)	Flow Rate (lpm)	Pressure (bar)
	NIAGARA M20.10_GEARBOX	ALU	BRO	4"	100	3	2000	10 - 15	N/A	N/A
	NIAGARA M30.10_GEARBOX	ALU	BRO	5"	125	3	3000	10 - 15	N/A	N/A
	NIAGARA M40.10_GEARBOX	ALU	BRO	6"	150	3	4000	10 - 15	N/A	N/A
	NIAGARA M50.10_GEARBOX	ALU	BRO	8"	200	3	5000	10 - 15	N/A	N/A
	NIAGARA M60.10_GEARBOX	ALU	BRO	8"	200	3	6000	10 - 15	N/A	N/A
	NIAGARA M65.10_GEARBOX	ALU	BRO	8"	200	3	6500	10 - 15	N/A	N/A

SINGLE STAGE MEDIUM PRESSURE PISTON PRIMING	PUMP MODEL	MATERIAL		SUCTION			M.P. STAGE		H.P. STAGE	
				Ø Suct. (inch)	Ø Suct. (mm)	Suct. Height (mt)	Flow Rate (lpm)	Pressure (bar)	Flow Rate (lpm)	Pressure (bar)
	NIAGARA M20.10_GEARBOX	ALU	BRO	4"	100	3	2000	10 - 15	N/A	N/A
	NIAGARA M30.10_GEARBOX	ALU	BRO	5"	125	3	3000	10 - 15	N/A	N/A
	NIAGARA M40.10_GEARBOX	ALU	BRO	6"	150	3	4000	10 - 15	N/A	N/A
	NIAGARA M50.10_GEARBOX	ALU	BRO	8"	200	3	5000	10 - 15	N/A	N/A
	NIAGARA M60.10_GEARBOX	ALU	BRO	8"	200	3	6000	10 - 15	N/A	N/A
	NIAGARA M65.10_GEARBOX	ALU	BRO	8"	200	3	6500	10 - 15	N/A	N/A

DOUBLE STAGE MEDIUM/HIGH PRESSURE WATER RING PRIMING	PUMP MODEL	MATERIAL		SUCTION			M.P. STAGE		H.P. STAGE	
				Ø Suct. (inch)	Ø Suct. (mm)	Suct. Height (mt)	Flow Rate (lpm)	Pressure (bar)	Flow Rate (lpm)	Pressure (bar)
	NIAGARA C20.10_GEARBOX	ALU	BRO	4"	100	3	2000	10 - 15	400	40
	NIAGARA C30.10_GEARBOX	ALU	BRO	5"	125	3	3000	10 - 15	400	40
	NIAGARA C40.10_GEARBOX	ALU	BRO	6"	150	3	4000	10 - 15	400	40
	NIAGARA C50.10_GEARBOX	ALU	BRO	8"	200	3	5000	10 - 15	400	40
	NIAGARA C60.10_GEARBOX	ALU	BRO	8"	200	3	6000	10 - 15	400	40
	NIAGARA C65.10_GEARBOX	ALU	BRO	8"	200	3	6500	10 - 15	400	40

DOUBLE STAGE MEDIUM/HIGH PRESSURE PISTON PRIMING	PUMP MODEL	MATERIAL		SUCTION			M.P. STAGE		H.P. STAGE	
				Ø Suct. (inch)	Ø Suct. (mm)	Suct. Height (mt)	Flow Rate (lpm)	Pressure (bar)	Flow Rate (lpm)	Pressure (bar)
	NIAGARA C20.10_GEARBOX	ALU	BRO	4"	100	3	2000	10 - 15	400	40
	NIAGARA C30.10_GEARBOX	ALU	BRO	5"	125	3	3000	10 - 15	400	40
	NIAGARA C40.10_GEARBOX	ALU	BRO	6"	150	3	4000	10 - 15	400	40
	NIAGARA C50.10_GEARBOX	ALU	BRO	8"	200	3	5000	10 - 15	400	40
	NIAGARA C60.10_GEARBOX	ALU	BRO	8"	200	3	6000	10 - 15	400	40
	NIAGARA C65.10_GEARBOX	ALU	BRO	8"	200	3	6500	10 - 15	400	40

## NIAGARA-VICTORY FIRE FIGHTING PUMPS SERIES

SINGLE STAGE MEDIUM PRESSURE PISTON PRIMING	PUMP MODEL	MATERIAL		SUCTION			M.P. STAGE		H.P. STAGE	
				Ø Suct. (inch)	Ø Suct. (mm)	Suct. Height (mt)	Flow Rate (lpm)	Pressure (bar)	Flow Rate (lpm)	Pressure (bar)
	NIAGARA-VICTORY M10.10	ALU	BRO	4"	100	3	1000	10	N/A	
	NIAGARA-VICTORY M20.10	ALU	BRO	4"	100	3	2000	10	N/A	
DOUBLE STAGE MEDIUM/HIGH PRESSURE WATER RING PRIMING	PUMP MODEL	MATERIAL		SUCTION			M.P. STAGE		H.P. STAGE	
				Ø Suct. (inch)	Ø Suct. (mm)	Suct. Height (mt)	Flow Rate (lpm)	Pressure (bar)	Flow Rate (lpm)	Pressure (bar)
	NIAGARA-VICTORY C10.10	ALU	BRO	4"	100	3	1000	10	400	40
	NIAGARA-VICTORY C20.10	ALU	BRO	4"	100	3	2000	10	400	40



## Combined Medium / High Pressure Fire Fighting Pumps **NIAGARA "C-SERIES"**

- Centrifugal pump type, double stage
- Case made of **Bronze** or **Aluminium Light Alloy** whit anti-corrosion treatment
- Medium Pressure impeller made of **Bronze** or **Aluminium Light Alloy** whit anti-corrosion treatment
- High pressure impeller made of **Bronze**
- Impeller's wear rings replaceable
- Can be equipped with Ball Bearing Box made of **Cast Iron** or Gearbox made of **Aluminium** (various ratio available)
- **DUPLEX Stainless Steel** shaft supported by ball-bearings
- **Self-balanced** mechanical seal
- Flanged suction inlet on the pump body
- Delivery manifold made of **Bronze** or **Aluminium Light Alloy** whit anti-corrosion treatment equipped of n°6 flanged connections
- **Thermal relief** valve
- **Overpressure security valve** on HP stage
- High pressure hose reel connection
- **Stainless Steel** strainer on high pressure stage
- **Priming Systems available (supplied integrally assembled at the water pump):**
  1. Water ring priming system with automatic engagement, made of **Bronze** or **Aluminium Light Alloy** whit anti-corrosion treatment
  2. **Reciprocating Double Pistons Priming System** with automatic engagement / disengagement done through electric clutch

## Medium Pressure Fire Fighting Pumps **NIAGARA "M-SERIES"**

- Centrifugal pump type, single stage
- Case made of **Bronze** or **Aluminium Light Alloy** whit anti-corrosion treatment
- Medium Pressure impeller made of **Bronze** or **Aluminium Light Alloy** whit anti-corrosion treatment
- High pressure impeller made of **Bronze**
- Impeller's wear rings replaceable
- Can be equipped with Ball bearing box made of **Cast Iron** or Gearbox made of **Aluminium** (various ratio available)
- **DUPLEX Stainless Steel** shaft supported by ball-bearings
- **Self-balanced** mechanical seal
- Flanged suction inlet on the pump body
- Flanged delivery outlet on the pump body
- **Thermal relief** valve
- **Priming Systems available (supplied integrally assembled at the water pump):**
  1. Water ring priming system with automatic engagement, made of **Bronze** or **Aluminium Light Alloy** whit anti-corrosion treatment
  2. **Reciprocating Double Pistons Priming System** with automatic engagement / disengagement done through electric clutch

### Various type of optionals available

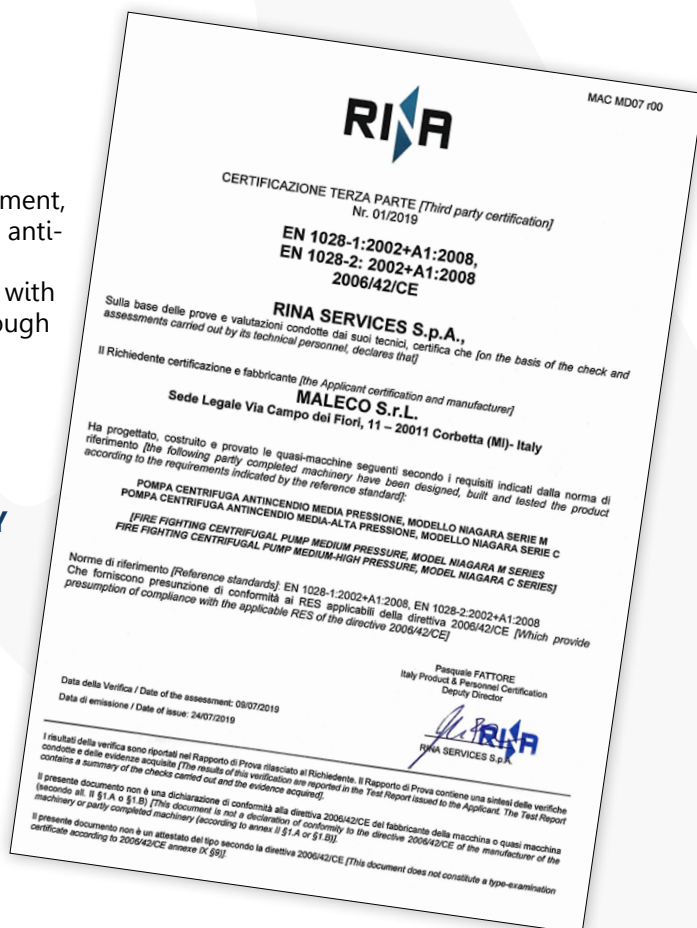
(delivery valves, inlet connections, foam mixers, etc.)

**THE FIRE FIGHTING PUMPS NIAGARA SERIES ARE FULLY COMPLIANT TO EN 1028-1 AND EN 1028-2 RULES**



AN ISO 9001:2015  
certified company

Member of CISO Federation



**MALECO** is providing the largest range of **HOSE REELS** series, be used with water foam solution for firefighting application or with water for cooling of structure and civil building.

The hose reels are suitable for every field application, permanent fixed, or mounted on vehicles, ship, as well as for mobile fire brigade operation they can be operated with fresh water, seawater, dry chemical powder, water foam solution.

Simple in principle they are the result of complex engineering designed to deliver high performance after long periods of inactivity.

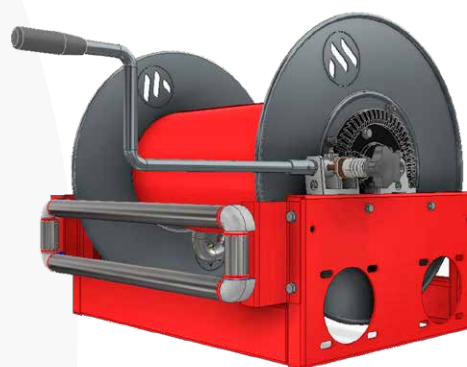
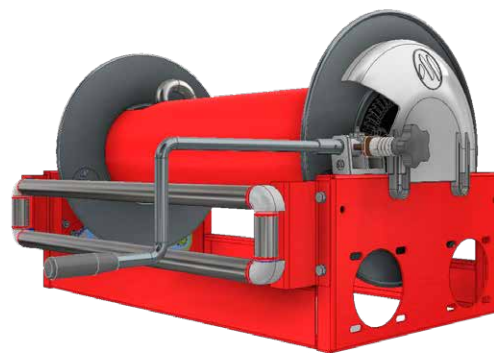
Materials are **Bronze, Stainless Steel, Brass** internal joint from  $\frac{3}{4}$ " to  $1\frac{1}{2}$ " internal passage, with very low-pressure loss due **MALECO** design. Structure as modular construction can built in any materials, carbon steel painted with a polyester powder coating, hot dip galvanised or stainless steel.

Details of more special version on request demand. All **MALECO HOSE REELS** can be mounted up right, horizontal, different inlet, left or right. Inlet and rewind manual operation.

Fixed or pull-out hose roller guides can be mounted at the top or bottom of the hose reel.

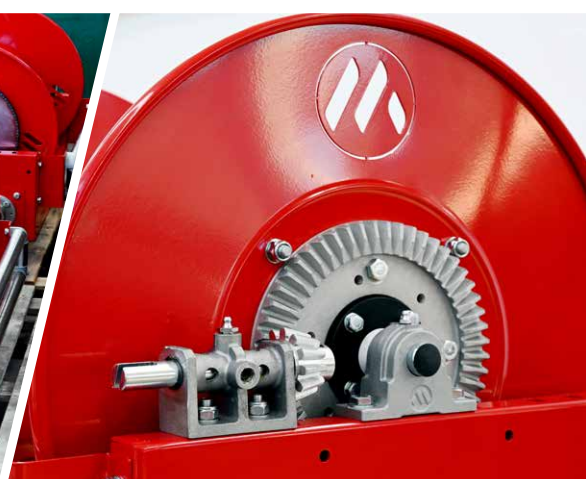
#### Complete range of operation modes:

- **MALECO ML** - Manual rewind
- **MALECO CV** - Remote Manual rewind
- **MALECO EL** - Remoted Control Electric rewind
- **MALECO AIR** - Air compressed Control pneumatic rewind
- **MALECO EL/V** - Electrical rewind with electrical brake



#### Typical installation

Modular design that ensures ease of installation  
Working pressure: 10 bar -40 bar – 55 bar  
Electrical supply : 12-24 Vdc  
Low consumption : 300 Watt max.  
Water inlet / outlet :  $\frac{3}{4}$ " , 1" ,  $1\frac{1}{4}$ "  
Suitable for Hose Rubber : 50 – 60 – 80 m  
Degree Protection : IP 55  
Carbon steel material powder epoxy painted  
**RED RAL 3000**





# HUDSON FIRE MONITOR SERIES



**MALECO** is providing the largest range of **Fire Fighting Monitors HUDSON** series, are used with water foam solution for firefighting or with water for cooling of structure and civil building.

The monitors are suitable for every field application, permanent fixed, or mounted on vehicles, ship, as well as for mobile fire brigade operation they can be operated with fresh water, seawater, dry chemical powder, water foam solution.

Our experienced engineering team helps you customize your desired equipment for any safety protection application.

Simple in principle they are the result of complex engineering signed to deliver high performance after long periods of inactivity.

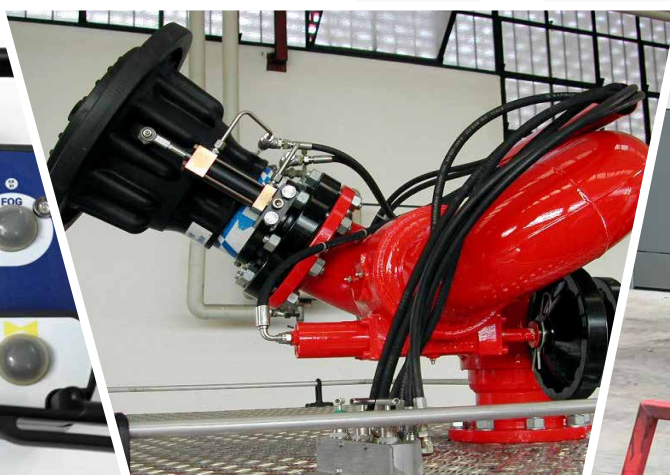
Materials Bronze and Stainless steel are available

Different flow rates from 500 litres per minute up to 40.000 litres per minute (depending on the monitor model)

The materials of construction make it suitable for being used with sea water or water foam solution within industrial harsh environments & offshore applications.

## Complete range of operation modes:

- HUDSON Manual handle lever Operated (**HL**)
- HUDSON Manual handle wheels Operated (**CV**)
- HUDSON Remoted Control Electric Operated (**TCO**)
- HUDSON Remoted Control Electric Operated (**TCE**)
- HUDSON Remoted Control Hydraulic Operated (**TEO**)
- HUDSON Remoted Control Electric/Hydraulic Operated (**TEO**)
- HUDSON Remoted Control Radio/Water turbine Operated (**TAO**)
- HUDSON Single or multiple agents (**TWA**)





## Materials bronze/stainless steel/light alloy

Location of the inlet, outlet, riser and rewind mechanism can be varied to meet your requirements and must to be specified on your order, or please refer to following components location:

MATERIALS				
Designation	<b>Copper</b> Cu	<b>Zinc</b> Alu	<b>Lead</b> Ni	<b>Tin</b> Fe Fz Sn
CC491K /was BS LG2-C)	85.0 %	5.0 %	5.0 %	5.0 %
ASTM B30 C83 600	85.0 %	5.0 %	5.0 %	5.0 %
ASTM B 148 ALU/BRONZE	85.0 %	4.0 %	5.0 %	5.0 %
Designation	<b>AISI TP 304 L</b>			
Designation	<b>AISI TP 316 L</b>			

Standard inlet flanges are ANSI 150#FF-RF –ANSI B 16.5  
On stainless steel monitors (or monitors with steel plinths)  
all flanges are RF STD.

On bronze monitors all flanges are FF STD.

On light alloy monitors all flanges are FF as standard



**For all the pumps' technical specifications and optional see our  
new website**

[www.maleco-firefightingpumps.it](http://www.maleco-firefightingpumps.it)

## Maleco Hudson Monitors

are adapted to a large span of applications:

- Fixed protection
- Storage tanks area
- Wheeled and mobile fire monitors
- Fire Trucks monitors
- Marine application
- Helideck - Hangars
- Hydrant monitors
- Jetty loading platforms
- Refineries



**MALECO** is a manufacturer of a wide range of certified **DRY CHEMICAL POWDER SYSTEMS**, which can be used with extinguishing powders for firefighting applications or civil / industrial / military / and manufacturing.

**MALECO DRY CHEMICAL POWDER SYSTEMS** are suitable for any field of application, permanently fixed or applied to motor vehicles, trucks or boats, as well as for moving fire brigade operations they can be powered with **Nitrogen** or **CO2** and use dry chemical dust.

The **MALECO DRY CHEMICAL POWDER SYSTEMS** are designed and built according to the specific technical requirements of the various clients and the products are certified according to **2014/68/EU (EX PED 97/23/EC), ASME VIII DIV. I.**

The construction materials of the hose reel's swivel joint of is made of antifriction material such as bronze with composite seals **VITON + PTFE** with internal passages of **1"1/2**, with very low pressure losses gather to the study of internal fluid dynamics carried out by **MALECO**.



The structure has a modular construction in order to be able to be made with various finishes and materials, such as Carbon Steel with polyester powder finish, Hot Zinc Plating or Stainless Steel.

Powder tank capacities range from 100 to 500 kg.

Each hose reel can be equipped with a hose gun or dispensing machine gun with flow rates up to 2 kg/sec. The control panel is totally integrated in the assembly structure or can be supplied loose for remote mounting.

Details of special versions on request.





We are able to offer multiple types of fire-fighting motorpumps on supports such as cargo trailers, light trailers, heavy trailers and skid both normal and soundproof. This allows us to realize even the most specific needs, supplying specialized products and productions of individual highly customised units.

The diesel and petrol drive units adopted for our production come from the most famous and noble manufacturers and guarantee absolute reliability, robustness, low consumption, high efficiency as well as the possibility to operate in many and various climatic conditions.

The NIAGARA fire-fighting motorpumps are conceived, studied and realized to provide the best performances, guaranteeing a high reliability, the possibility of having highly personalized solutions, excellent quality price ratio, a simple but charming typically Italian design as well as extremely reduced weights and dimensions, to the advantage of the load capacity and the handling that characterizes all the current production.

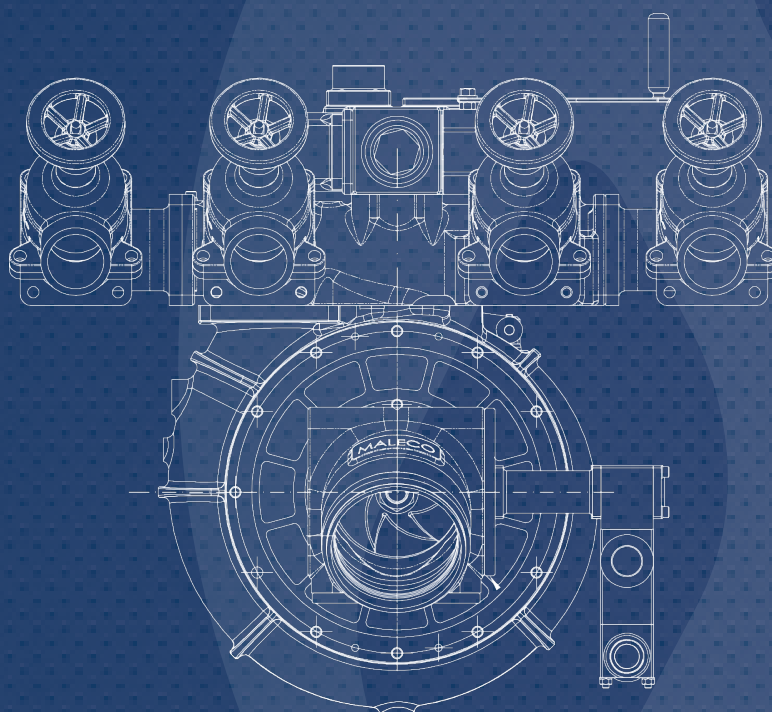
Efficiency, reliability, robustness and possibility to work in any climatic conditions provide to the **NIAGARA** fire fighting motorpumps the particularity of being able to be used in civil, military, industrial, naval, refinery environments and chemical plants.



NIAGARA FIRE-FIGHTING MOTORPUMPS







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AN ISO 9001:2015  
certified company

