

A Leader of Pumps for Industry





- ❑ GRUPPO ATURIA HISTORY
- ❑ FIREFIGHTING PUMPS
- ❑ FIREFIGHTING PRODUCTS
- ❑ FIREFIGHTING APPLICATIONS & REFERENCE
- ❑ MANUFACTURING PLANTS
- ❑ TECHNOLOGY & SOFTWARE
- ❑ REVENUES
- ❑ CUSTOMER SERVICE
- ❑ QUALITY





GRUPPO ATURIA HISTORY





A Long History Rich of Important Experiences

The Integration of Five Centrifugal Pumps Manufacturers

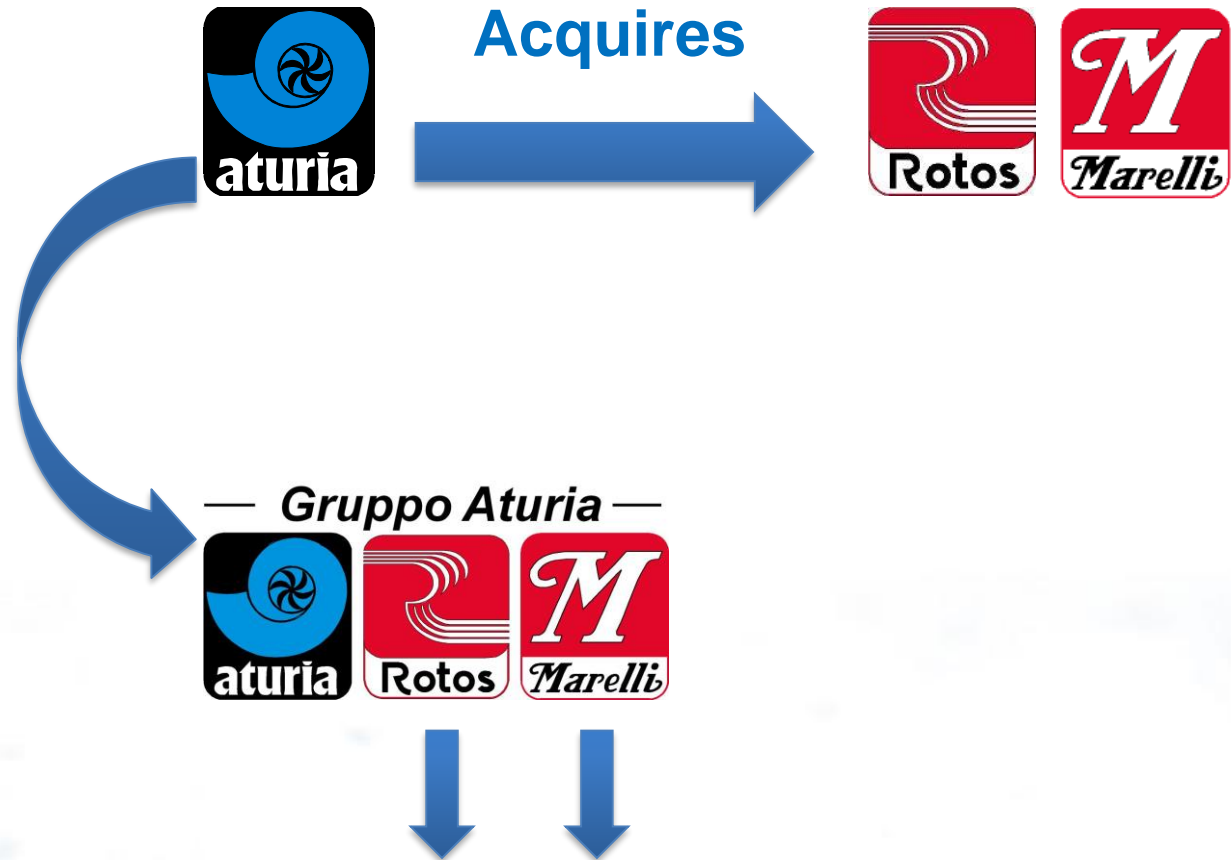


1980



“ Marelli Pompe activities ”
from **Sesto S. Giovanni** to **Pozzo D'Adda**

1990



“ Rotos & Marelli activities “
from **Pozzo D’Adda** to **Gessate**



2003

— Gruppo Aturia —



→
Acquires



— Gruppo Aturia —



“ Pumps Production ”
from **Torino** to **Gessate**

“ Fire-Fighting & Service ”
in **Torino**



2006

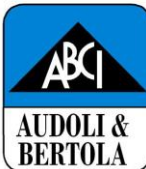


Acquires



2009

Gruppo Aturia



Acquires



Gruppo Aturia



May 29th 2015



Acquires

Gruppo Aturia was acquired by WPIL
(former Worthington Pumps India Limited).

The acquisition offers the opportunity to become
a global pump manufacturer, present worldwide
in different markets (Oil & Gas, power
generation, etc.)





COMPANIES HISTORY





HISTORY

- 1927 :** Aturia starts its activity in Milano, Operating in the field of centrifugal water pumps.
- 1946 :** The availability of electric power and underground water in the Milano area gives Aturia the opportunity to develop the submersible pumpsets.
- 1960 :** Aturia improves the performance and the reliability of the submersible pumpsets and extends its market area from Italy to Mediterranean Countries, America and Asia.
- 1990 :** With the aim of enlarging the production range, Aturia takes over the pumps business of “Rotos” and “ Marelli”.
- 2003 :** Acquires “Audoli & Bertola”.
- 2006 :** Aturia, in order to achieve more competence and to gain experience in high demanding applications (Chemical, Petrolchemical, Nuclear), acquires “Gruppe Rüttschi”.
- Rüttschi, the “Pioneer” of Canned Motor Pumps, operates with two companies: Rüttschi Fluid AG in Brugg (Switzerland) and Pompes Rüttschi SA in Mulhouse (France).
- 2009 :** Acquires the pump business of “Aris-Chiappa”.





HISTORY

- 1919 :** Rotos starts the production of Electric Motors, Monobloc, Single, Multistage and Vertical Pumps in Milano. The company develops all water applications in the field of agriculture, building and industry.
- 1962 :** Rotos joins “Guinard Group” and becomes the “Development Center” of multistage pumps for the French Group.
- Gaining the Guinard experience, Rotos starts the production of cast steel pumps for the process industry (ISO 2858 and API 610).
- 1978 :** The company moves to the plant located in Pozzo d’Adda (Milano).
- 1980 :** Rotos enters the (Marelli Group).
- 2005 :** Start up of the Plant in Taglio di Po (Rovigo) dedicated to the Development and Production of Magnetic Drive Seal-less Pumps.



HISTORY

- 1891 :** Marelli is founded in Sesto San Giovanni (Milano).
- 1898 :** It starts the production of Electric Motors.
- 1905 :** Marelli starts the production of Centrifugal Pumps coupled to Electric Motors and develops different types of pumps for various applications: from agriculture to navy, from tool machines to chemical industries.
- 1979 :** The Monobloc Pumpsets business is transferred to “Ercole Marelli Componenti” (EMC) and the business of Vertical Pumps with large flows and Split Case Pumps are transferred to the Engineering Company “Impianti Tecnologici Ercole Marelli” (ITEM).
- 1984 :** GIEM (Gruppo Industriale Ercole Marelli) controls EMC, ITEM and ROTOS.
- 1990 :** All pump activities of GIEM are transferred to “Gruppo Aturia”.
During the year all the production moves to Gessate plant.





HISTORY

- 1890 :** Audoli & Bertola starts in Torino the production of Vertical Pumps for agriculture applications.
In the following years Audoli & Bertola develops the supply of “turn-keys” water distribution plants both in Italy and in other Mediterranean countries.
- 1993 :** The “Gruppe Rüttschi” acquires the company and improves the design of Vertical Pumps for heavy industrial applications (steel mills, cooling system, power plants, marine) and Fire-Fighting System.
Audoli & Bertola get FM approval for centrifugal pumps
- 2003 :** “Gruppo Aturia”, in order to improve its presence in the industrial field, acquires “Audoli & Bertola”.
During the year the activities on the Vertical Pumps are moved to Gessate (Milano), whilst the Fire-Fighting business remains in Torino.





HISTORY

- 1921 :** G.Chiappa Fonderie is set up in Torino and starts the production of castings in Bronze, aluminium and cast iron.
- 1940 :** The company starts the production of Centrifugal Pumps for industrial applications.
- 1950 :** The name of the company is changed in A.R.I.S. (Acquedotti Ricerche Idriche Sottosuolo).
- 1954 :** The company changes the name in Aris Chiappa.
- 1970 :** Aris Chiappa starts the production of Vertical Turbine Pumps.
In co-operation with gas turbine manufacturers (Fiat Avio, Nuovo Pignone) develops a range of Lube Oil Pumps.
- 2009 :** “Gruppo Aturia”, with the aim to increase its production program in the Industry sector, acquires the pump business of “Aris Chiappa”.



FIREFIGHTING PUMPS

- **FM APPROVED / NFPA 20 / EN 12845 COMPLIANT**
 - VERTICAL
 - HORIZONTAL SPLIT-CASE
- **NFPA 20 / EN 12845 COMPLIANT**
 - VERTICAL
 - HORIZONTAL SPLIT-CASE
 - OVERHUNG AND VERTICALLY SUSPENDED
 - END SUCTION
 - MULTISTAGE
 - SUBMERSIBLE



FM APPROVED / NFPA 20 / EN 12845

VERTICAL TURBINE PUMPS

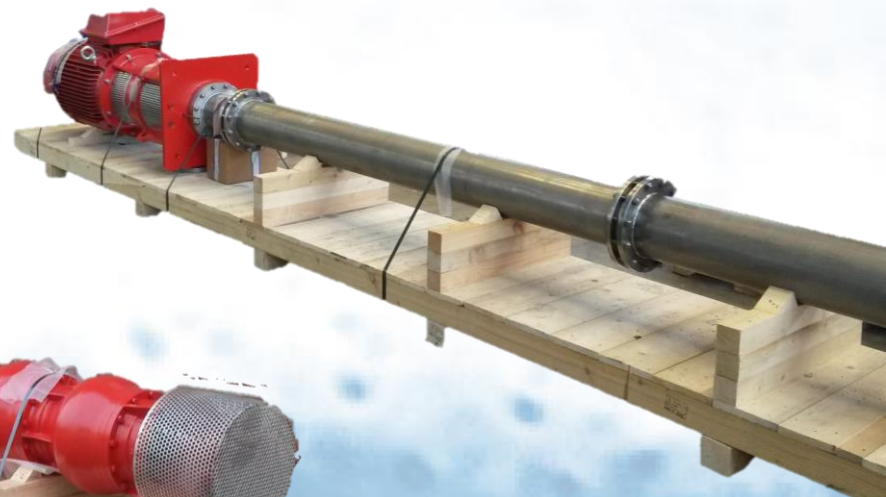
Type	Speed (R.P.M.)	Capacity (US G.P.M.)
VAB 152	1480 ÷ 1770	500 ÷ 750
VAB 180	1480 ÷ 1770	500 ÷ 1250
VAB 200	1480 ÷ 1770	1000 ÷ 1500
VAB 250	1480 ÷ 1770	1500 ÷ 2500
VAB 251	1480 ÷ 1770	2250 ÷ 3000
VAB 302	1480 ÷ 1770	2500 ÷ 4000
VAB 349	1480 ÷ 1770	4000 ÷ 5000
VAB 351	1480 ÷ 1770	4500 ÷ 5000

EN 12845



CAST IRON / BRONZE or STAINLESS STEEL

**ON REQUEST
STAINLESS STEEL / DUPLEX / SUPERDUPLEX**





FM APPROVED / NFPA 20 / EN 12845

HORIZONTAL SPLIT-CASE PUMPS

Type	Speed (R.P.M.)	Capacity (US G.P.M.)
PDN 150-300 L	2100 ÷ 3550	750 ÷ 1000
PDN 150 300 M	2100 ÷ 3550	1000 ÷ 1250
PDN 150 300 H	2100 ÷ 3550	1250 ÷ 1500
PDN 200-300 M	2350 ÷ 2970	2000
PD 200-250 B	1460 ÷ 1900	2000
PDN 300-400 F	1490 ÷ 1800	3500 ÷ 4500



EN 12845



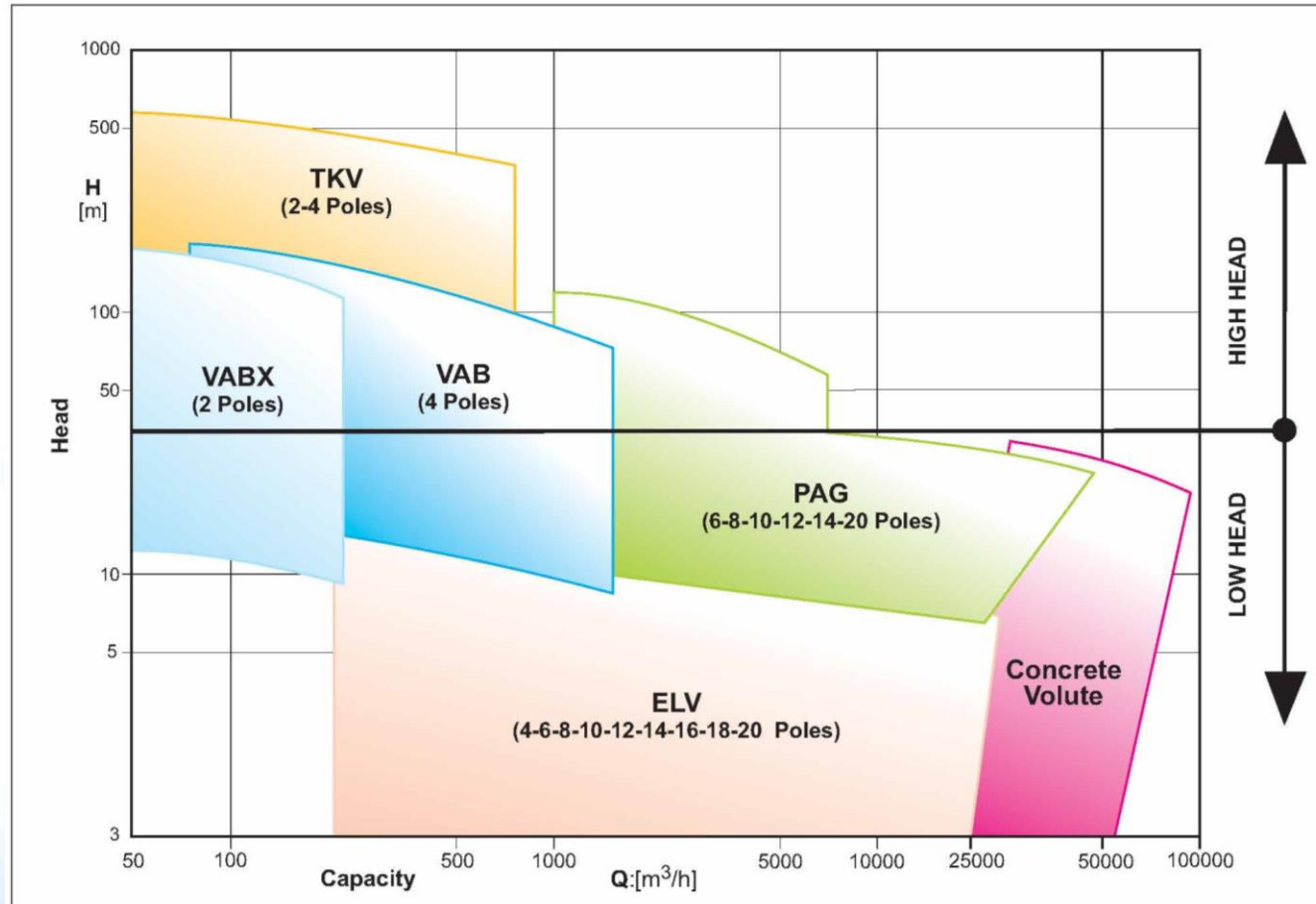
CAST IRON / BRONZE or STAINLESS STEEL

**ON REQUEST
STAINLESS STEEL / DUPLEX / SUPERDUPLEX**





NFPA 20 / EN 12845 COMPLIANT COVERAGE VERTICAL PUMPS





NFPA 20 / EN 12845 COMPLIANT VERTICAL TURBINE PUMPS

Type	Max Pressure m (bar)	Capacity (US G.P.M.)
ELV-PEN	16 (1,5)	660 ÷ 13.500
FG	180 (17)	8 ÷ 8.800
PAG	140 (15)	6.600 ÷ 66.000
TVK	550 (54)	440 ÷ 880
VABX	220 (22)	50 ÷ 1200
VAB	176 (17)	220 ÷ 9.680

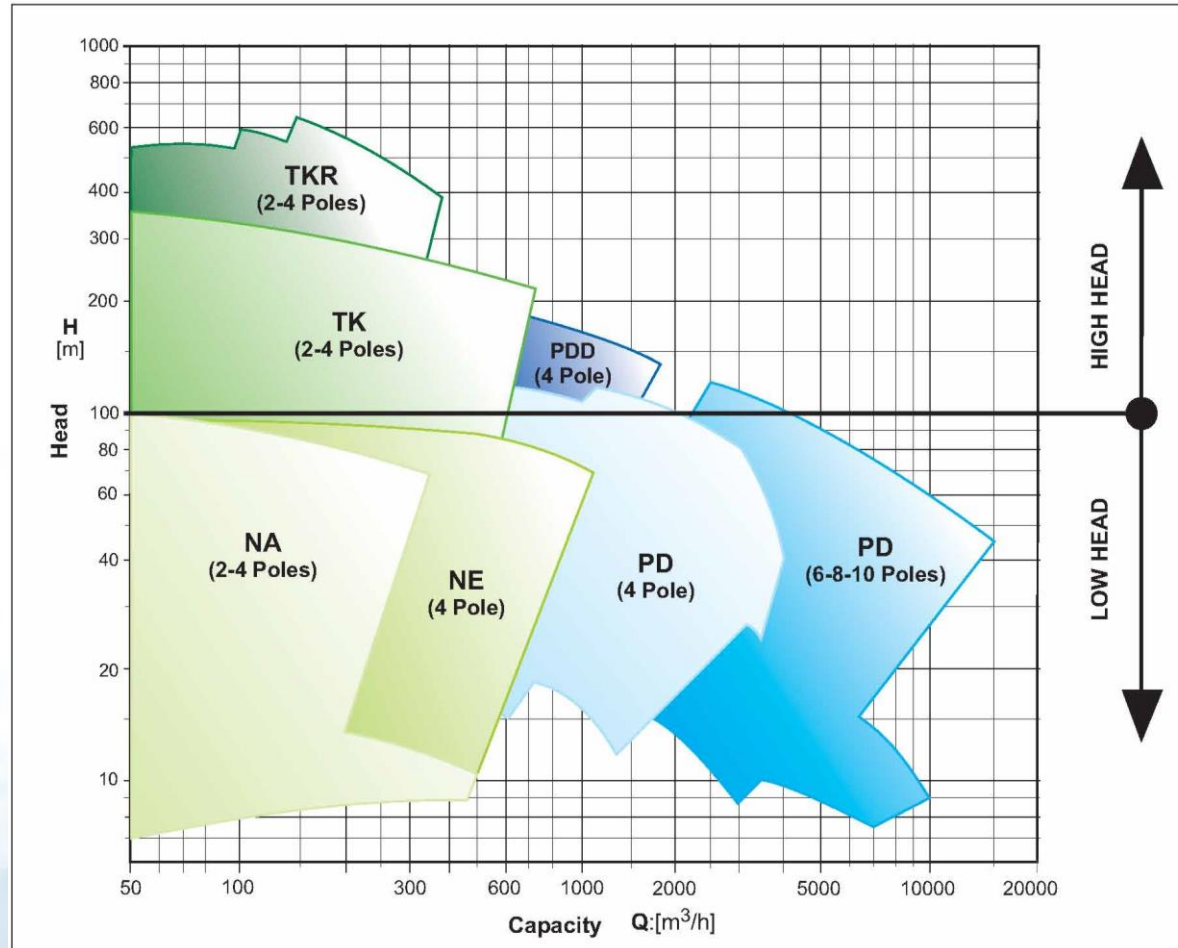


Gruppo Aturia





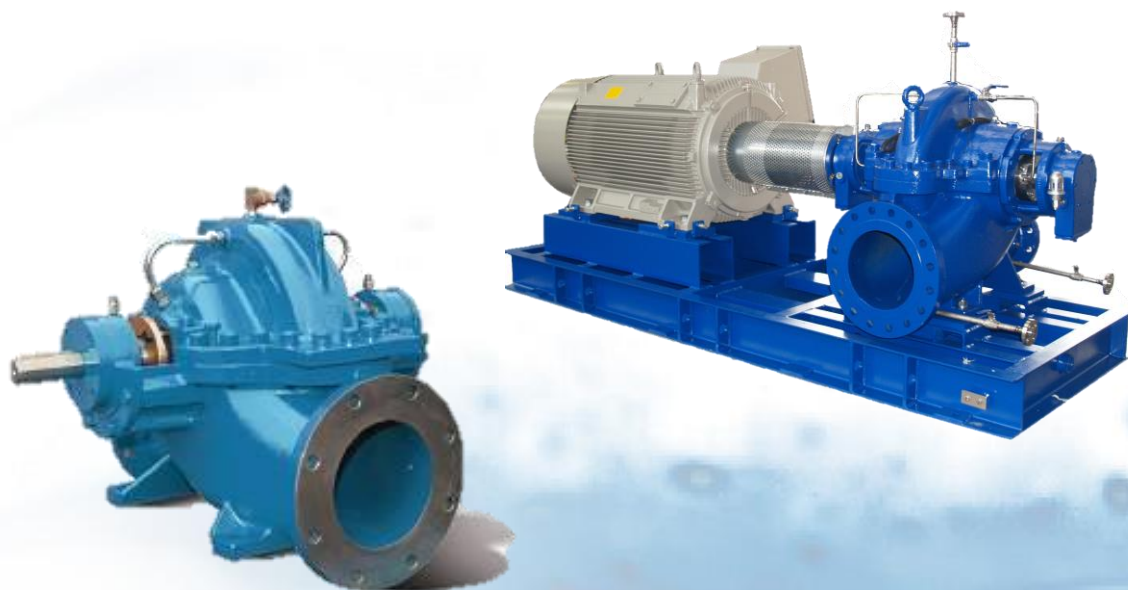
NFPA 20 / EN 12845 COMPLIANT COVERAGE SURFACE PUMPS





NFPA 20 / EN 12845 COMPILANT HORIZONTAL SPLIT-CASE PUMPS

Type	Max Pressure m (bar)	Capacity (US G.P.M.)
PD	170 (17)	220 ÷ 15.400
PDV	170 (17)	220 ÷ 15.400





NFPA 20 / EN 12845 COMPLIANT OVERHUNG AND VERTICALLY SUSPENDED

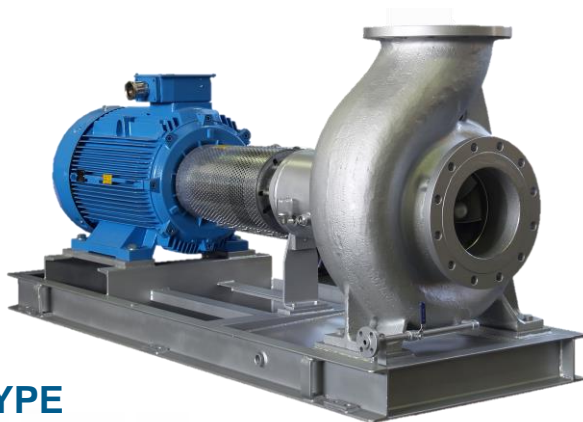


Poles	2 - 4
Capacity [m ³ /h]	4 - 1500
Head [m]	up to 350
Temperature [°C]	-100 / +370
Min. Working Pressure [Bar]	42

SMKM - KSMKM TYPE
(API 610 11ed.)



NFPA 20 / EN 12845 COMPLIANT END SUCTION PUMP



ND TYPE
(ISO 2858 & ISO 5199)



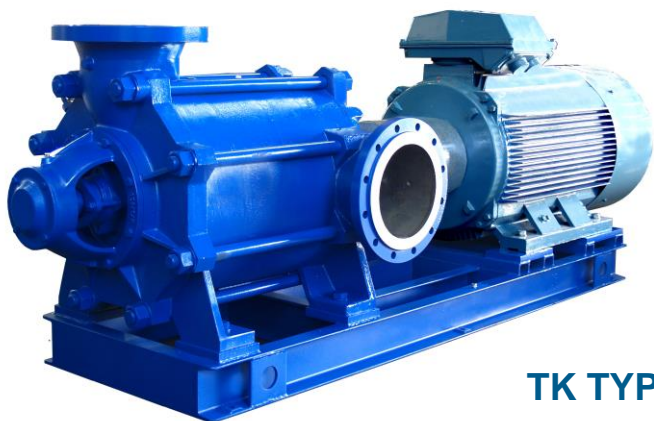
NA / NE TYPE
(EN733 & DIN24255)

Size DN	32 - 100	32 - 300
Poles	2	4
Capacity [m ³ /h]	5 - 330	3 - 1300
Head [m]	up to 140	up to 100
Impeller Ø [mm]	up to 315	up to 570
Power [kW]	up to 200	up to 315

Size DN	32 - 200	32 - 250
Poles	2	4
Capacity [m ³ /h]	6 - 330	3 - 1380
Head [m]	9 - 92	2 - 90
Impeller Ø [mm]	up to 250	up to 500
Power [kW]	up to 90	up to 315
Frequency [Hz]	50 - 60	



NFPA 20 / EN 12845 COMPLIANT MULTISTAGE RADIAL PUMPS



TK TYPE

Size DN	25 - 125	25 - 250
Poles	2	4
Capacity [m³/h]	3 - 400	3 - 840
Head [m]	up to 600	up to 350
Impeller Ø [mm]	up to 320	up to 415
Power [kW]	up to 450	up to 700
Pressure [bar]	up to 100	up to 60
Temperature [°C]	up to 180	



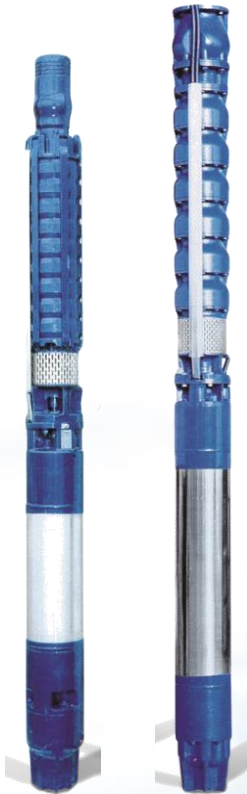
VTK TYPE



NFPA 20 / EN 12845 COMPILANT SUBMERSIBLE PUMPS

RADIAL – MIXED FLOW

Size	6" - 14"	14" - 25"
Poles	2	4
Capacity [m³/h]	7 - 900	up to 2000
Head [m]	10 – 700	up to 150
Power [kW]	4 – 400	up to 400
Voltage [V]	220 – 1000	
Frequency [Hz]	50 - 60	



CAST IRON



**STAINLESS STEEL - DUPLEX
BRONZE**

FIREFIGHTING PRODUCTS

- **BARESHAF PUMPS**

- VERTICAL
- HORIZONTAL SPLIT-CASE
- SPECIAL EXECUTION

- **PUMP SETS**

- MAIN VERTICAL DIESEL / ELECTRICAL
- MAIN HORIZONTAL DIESEL / ELECTRICAL
- JOCKEY END SUCTION / MULTISTAGE / VERTICAL
- SPECIAL EXECUTION

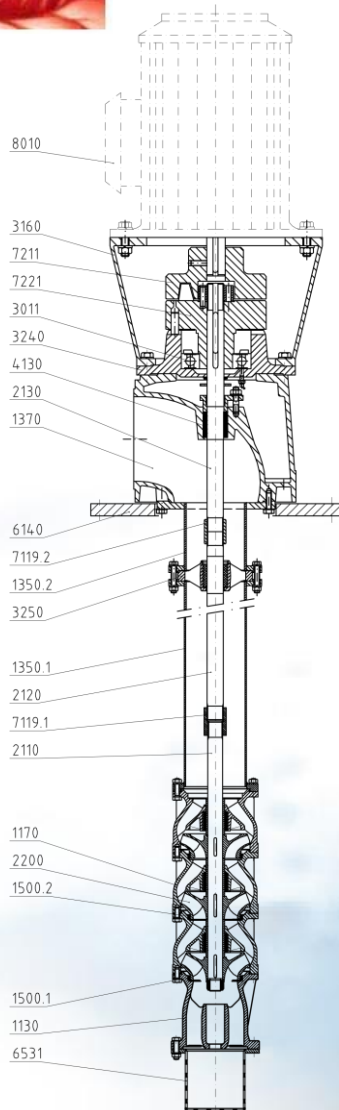
- **SYSTEMS**

- TYPICAL VERTICAL OR HORIZONTAL
- PLUG & PLAY IN CANOPY OR CONTAINER EXECUTION
- SPECIAL EXECUTION



BARESHAF PUMPS

VERTICAL



REF	DESCRIPTION	STANDARD MATERIALS
1130	Bellmouth	Cast Iron - G25
1170	Pump Bowl	Cast Iron - G25
1350,1	Column Pipe	Stainless Steel
1350,2	Column Pipe	Stainless Steel
1370	Delivey Casing	Cast Iron - G25
1500,1	Wear Ring	Bronze
1500,2	Wear Ring	Bronze
2110	Pump Shaft	Stainless Steel
2120	Intermediate Shaft	Stainless Steel
2130	Top Shaft	Stainless Steel
2200	Impeller	Bronze
3011	Ball Bearing	Stainless Steel
3160	Motor Stool	Cast Iron - G25
3240	Bearing Housing	Cast Iron - G25
3250	Bearing Bracket	Cast Iron - G25
4130	Gland Packing	Teflon - Carbon
6140	Foundation Plate	Steel Fe 430
6531	Suction Strainer	Steel Fe 510
7119,1	Screwed Coupling	AISI 420
7119,2	Screwed Coupling	AISI 420
7211	Coupling Half Side Motor	Cast Iron - G25
7221	Coupling Half Side Pump	Cast Iron - G25

EN 12845



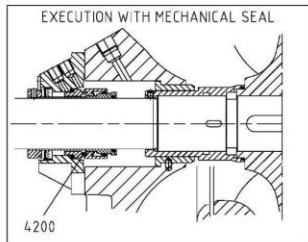
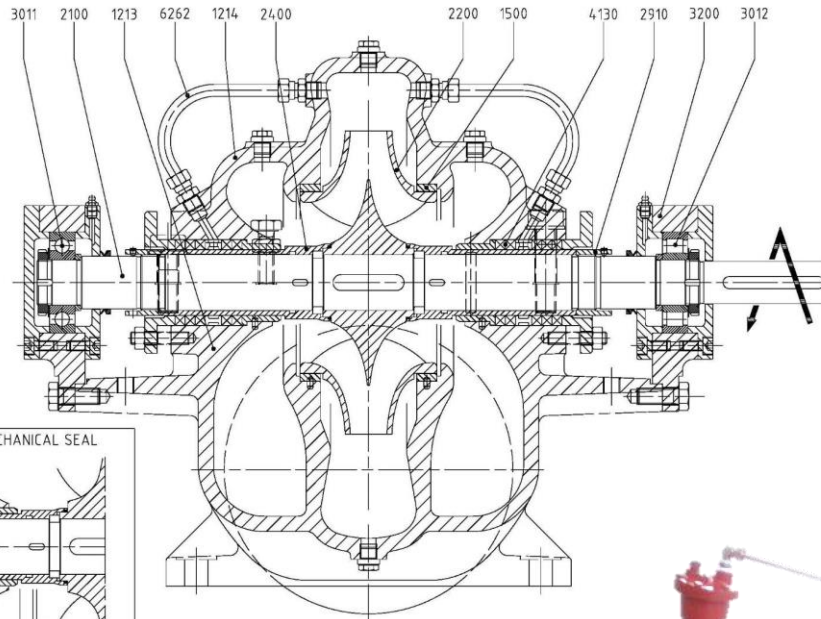
Gruppo Aturia





BARESHAFT PUMPS

HORIZONTAL SPLIT-CASE



STANDARD MATERIALS

REF	DESCRIPTION	MATERIAL
1213	Casing half lower	Cast Iron - G30
1214	Casing half upper	Cast Iron - G30
1500	Casing wear ring	Bronze
2100	Shaft	Stainless Steel
2200	Impeller	Bronze
2400	Sleeve	Bronze
2910	Shaft nut	Bronze
3011	Radial ball bearing	-
3012	Radial roller bearing	-
3200	Bearing housing	Cast Iron - G30
4100	Staffing box	Bronze
4130	Gland packing	PTFE
4200	Mechanical seal	On requested
6262	Pipe	Stainless Steel



EN 12845





On Request

BARESHAFT PUMPS

SPECIAL EXECUTION

**PROTECTIVE BLU FILM
ANTI-CONTAMINATION**

SACRIFICIAL ANODE



**SUBMERSIBLE MOTOR AND PUMP IN
BRONZE MARINE**



**TITANIUM PIPE
FOR ANTIFOULING**





On Request

BARESHAFT PUMPS SPECIAL EXECUTION

MECHANICAL SEAL



FOR CAISON



WINTERIZATION FOR ICED SURFACE



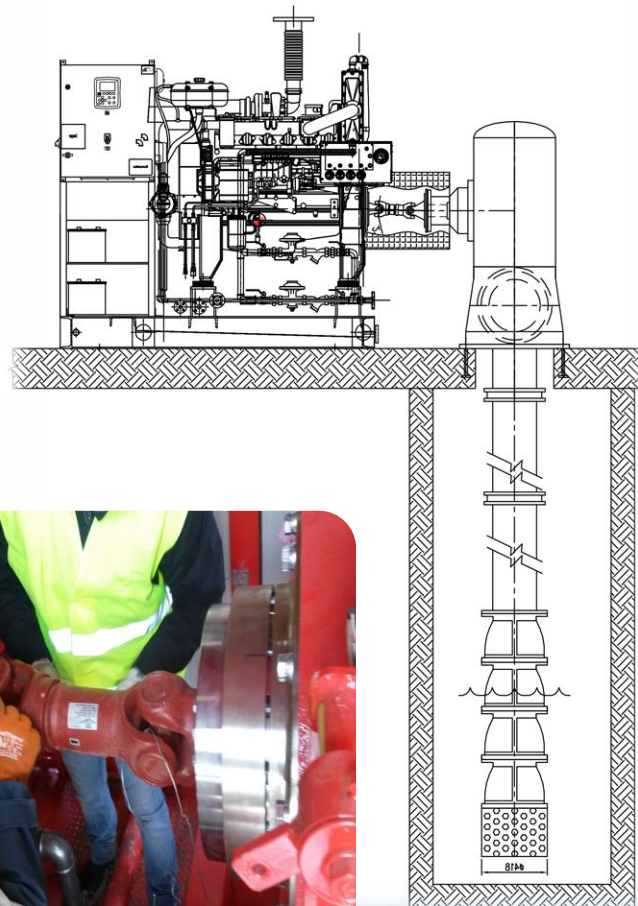


PUMP SET MAIN VERTICAL DIESEL OR ELECTRICAL

TYPICAL SCOPE OF SUPPLY

Diesel Engine or Electric Motor
Pump
Control Panel
Angle gear box with cooling circuit
Batteries
Pressure gauges and valves
Sensing line circuit
Cardan shaft coupling with flexible coupling and protection
Exhaust sillencer (only for Diesel pump)
Fuel Tank single or double wall (only for Diesel pump)

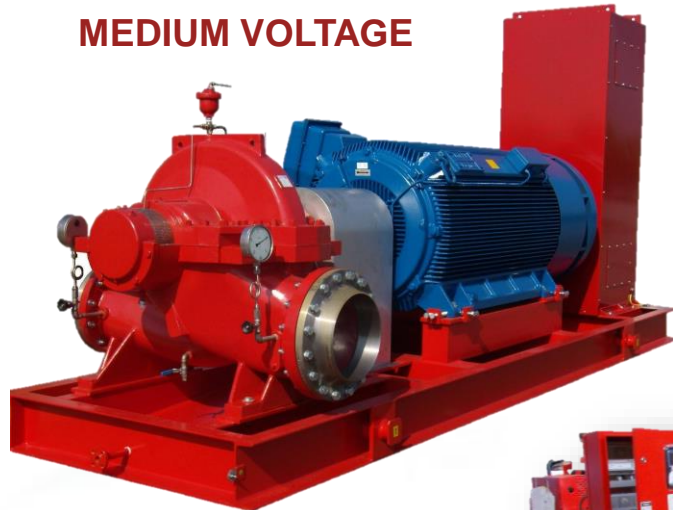
EN 12845





PUMP SET MAIN HORIZONTAL DIESEL OR ELECTRICAL

MEDIUM VOLTAGE



EN 12845

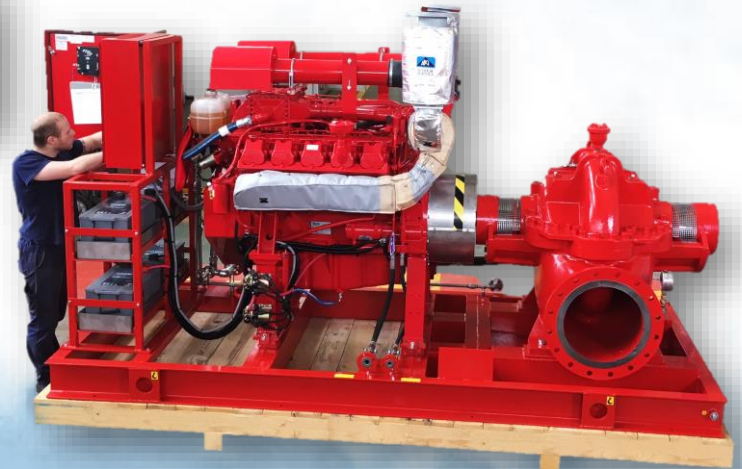


HORIZONTAL ASSEMBLED SKID STD.

Diesel Engine or Electric Motor Low / Medium Voltage
Pump
Control Panel
Batteries
Pressure gauges and valves
Sensing line circuit
Flexible coupling and protection in S.S.
Exhaust silencer (only for Diesel pump)
Fuel Tank single or double wall (only for Diesel pump)



LOW VOLTAGE



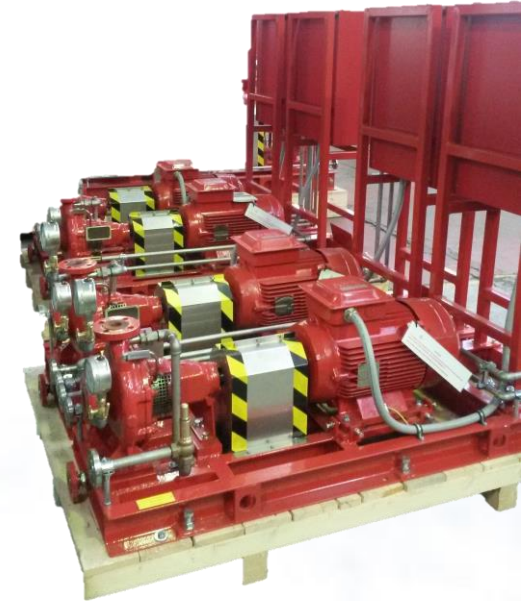


PUMP SET JOCKEY

END SUCTION / MULTISTAGE / VERTICAL

TYPICAL SCOPE OF SUPPLY

Electric Motor Low voltage
Pump
Control Panel
Rigid or Flexible coupling
Pressure relife valve
Pressure gauges and valves
Sensing line circuit
Protetion in S.S.
Expansion Tank (on request)
Other Accessories on request



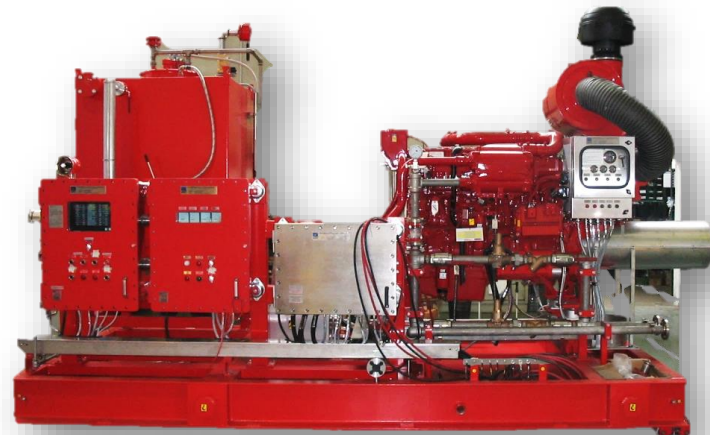
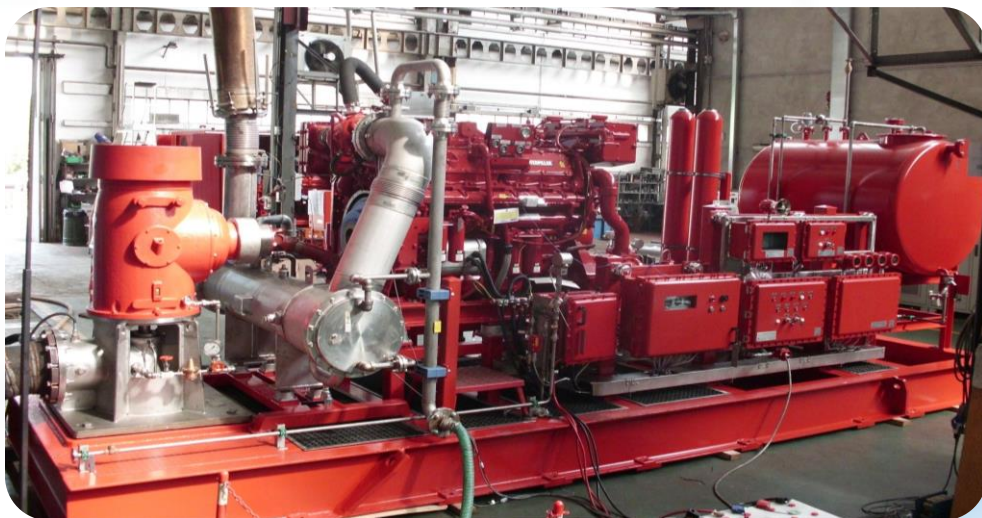


PUMP SET

SPECIAL EXECUTIONS

On Request

- Diesel engine with dual starting system (electrical/air ; electrical/hydraulic ; air /hydraulic)
- Diesel engine suitable for hazardous areas (only electrical ; mechanical & electrical)
- Cooling system for sea water



ATEX 





PUMP SET SPECIAL EXECUTIONS

Diesel engines up to 1,4 MW



CATERPILLAR



MITSUBISHI 1020 KW





PUMP SET SPECIAL EXECUTIONS

On Request

- Suitable for Marine Environments
- Noise Attenuation for residential areas
- EI60/120 certified executions



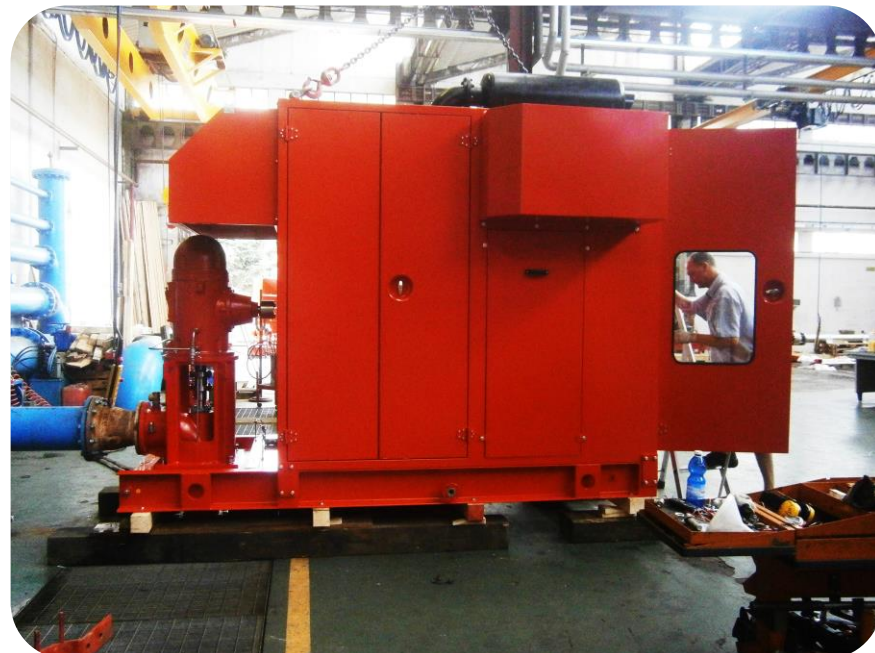


PUMP SETS

EXTERNAL VIEWS



STOCKGAP



STERLING



PUMP SETS EXTERNAL VIEWS



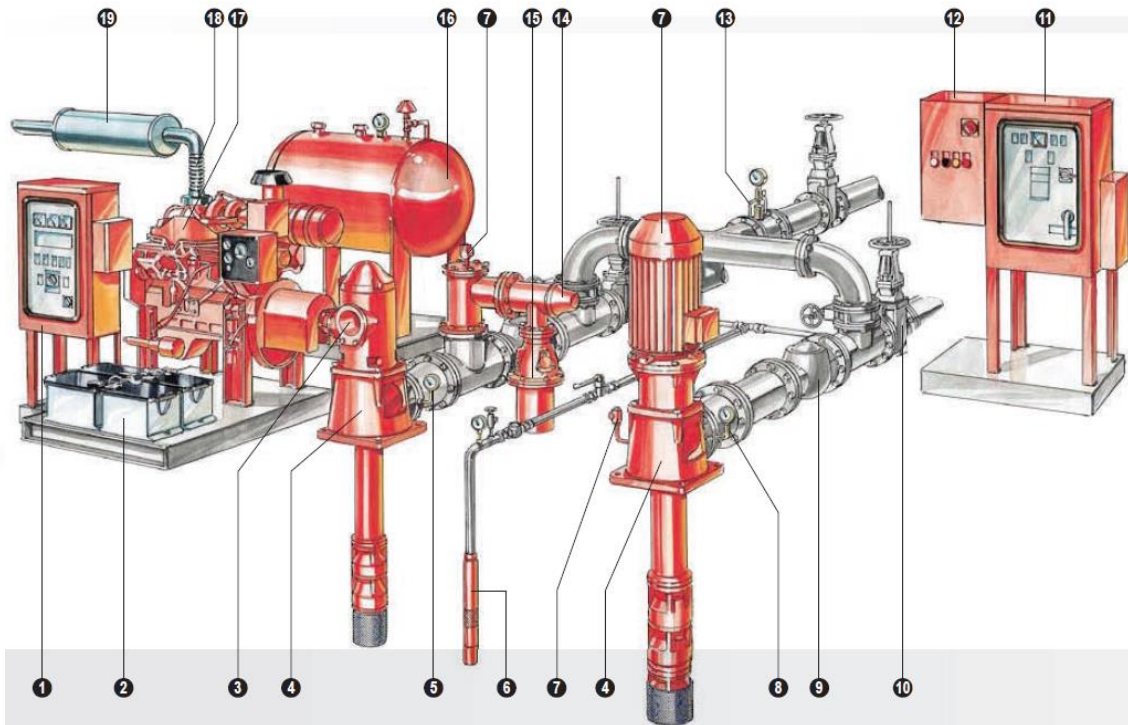
EXXON



ROSETTI



TYPICAL SYSTEM VERTICAL PUMPS INSTALLATION



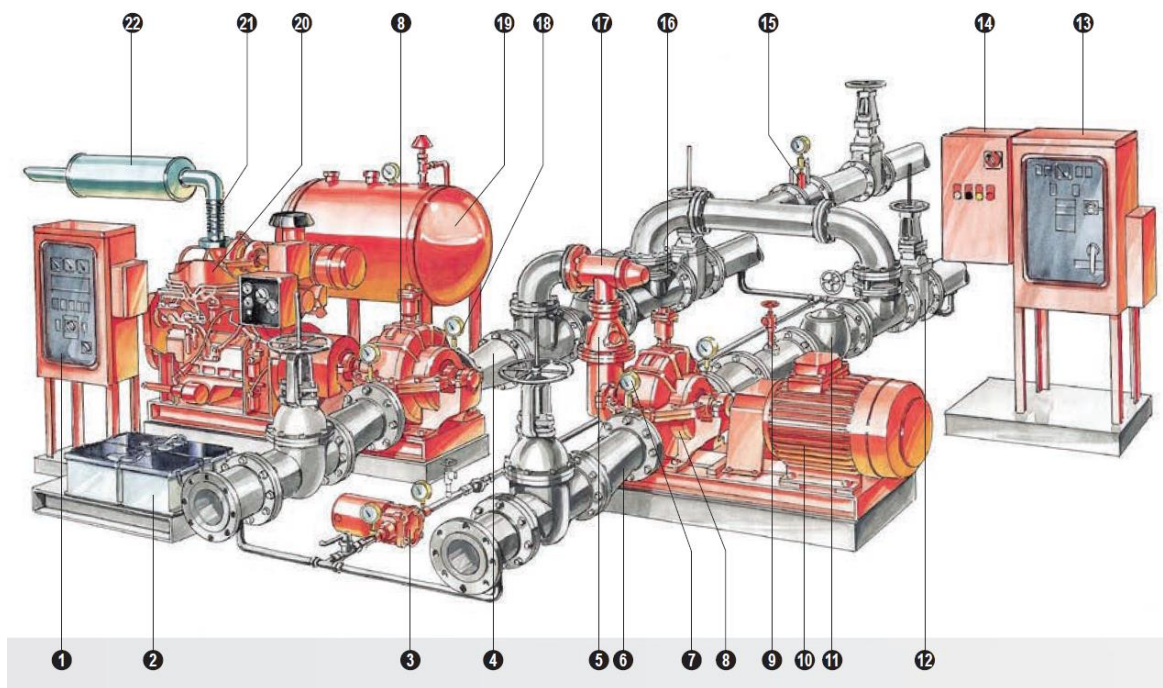
POS	DESCRIPTION
1	Diesel engine fire pump controller
2	Batteries
3	Right angle gear
4	Vertical turbine pump
5	Discharge pressure gauge
6	Jockey pump
7	Automatic ai release valve
8	Concentric discharge increaser
9	Check valve
10	OS&Y gate valve
11	Electric motor controller
12	Jockey pump controller
13	Test flow meter
14	Main relief valve
15	Open discharge overflow cone
16	Fuel tank
17	Diesel engine
18	Flexible exhaust connection
19	Exhaust muffler

UL/FM, NFPA 20 OR EN-12845 COMPLIANT



TYPICAL SYSTEM VERTICAL PUMPS INSTALLATION

POS	DESCRIPTION
1	Diesel engine fire pump controller
2	Batteries
3	Jockey pump
4	Concentric discharge increaser
5	Enclosed discharge overflow cone
6	Eccentric suction reducer
7	Suction pressure gauge
8	Horizontal pump
9	Cirvulation relief valve
10	Electric motor
11	Check valve
12	OS& Y gate valve
13	Electric motor fire pump controller
14	Jockey pump controller
15	Flow meeter test
16	Automatic air release valve
17	Main relif valve
18	Discharge pressure gauge
19	Fuel tank
20	Diesel Engine
21	Flexible exhaust connector
22	Exhaust muffler

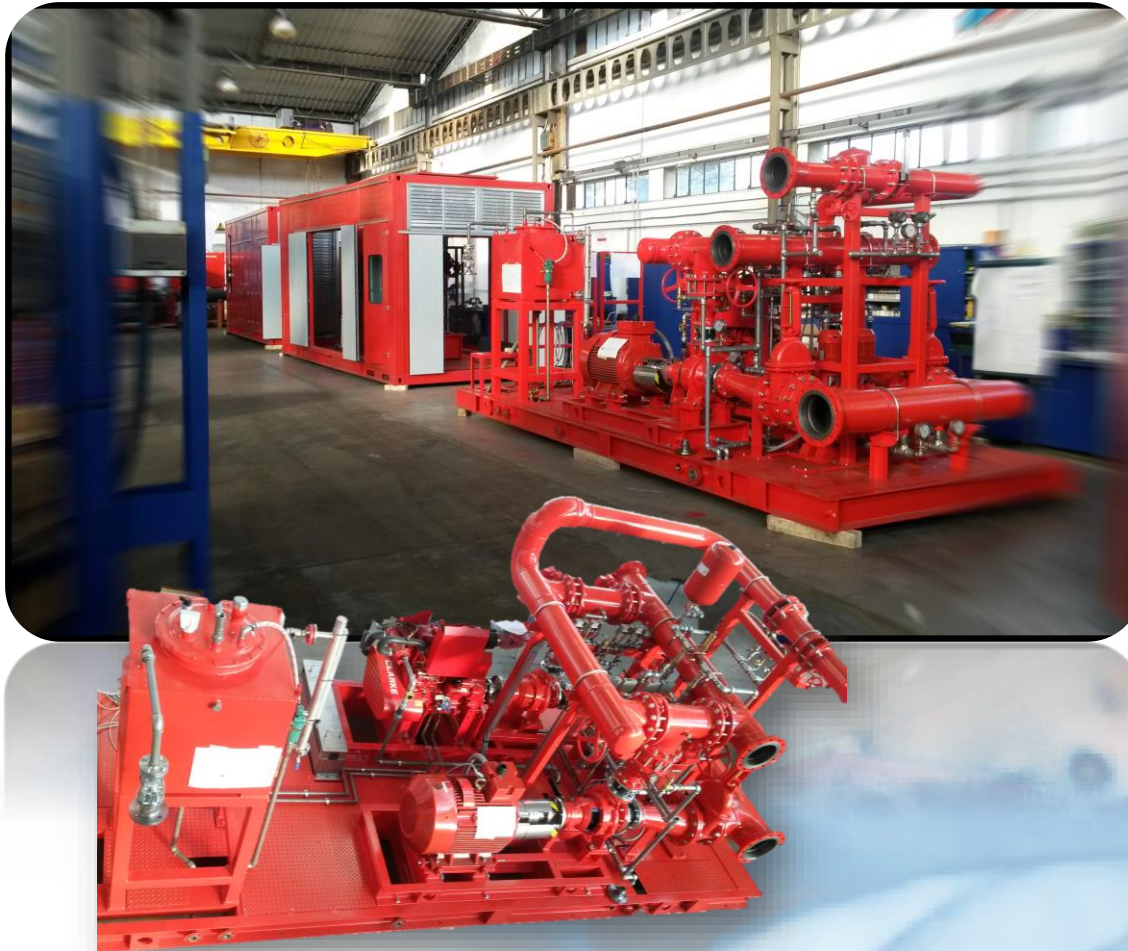


UL/FM, NFPA 20 OR EN-12845 COMPLIANT



FIREFIGHTING SYSTEMS

PLUG&PLAY PACKAGES



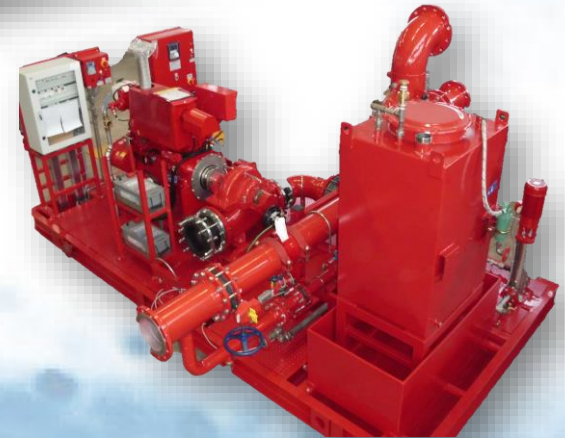
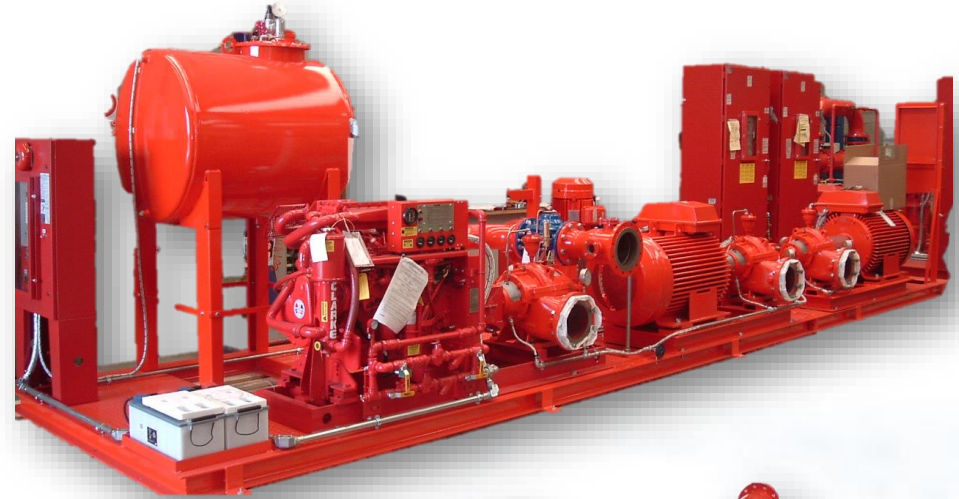
- According to NFPA20 / FM-UL or EN 12845
- Fire Resistant Canopy & Fire Resistant Container
- Tailor-made execution on client needs and specification



FIREFIGHTING SYSTEMS

PLUG&PLAY PACKAGES

- Designed with client to grant accessibility, maintenance and compact design





FIREFIGHTING SYSTEMS

PLUG&PLAY IN CANOPY OR CONTAINER

On Request

- Suitable for Marine Environments
- Noise Attenuation for residential areas
- EI60/120 certified executions
- Seismic design





FIREFIGHTING SYSTEMS

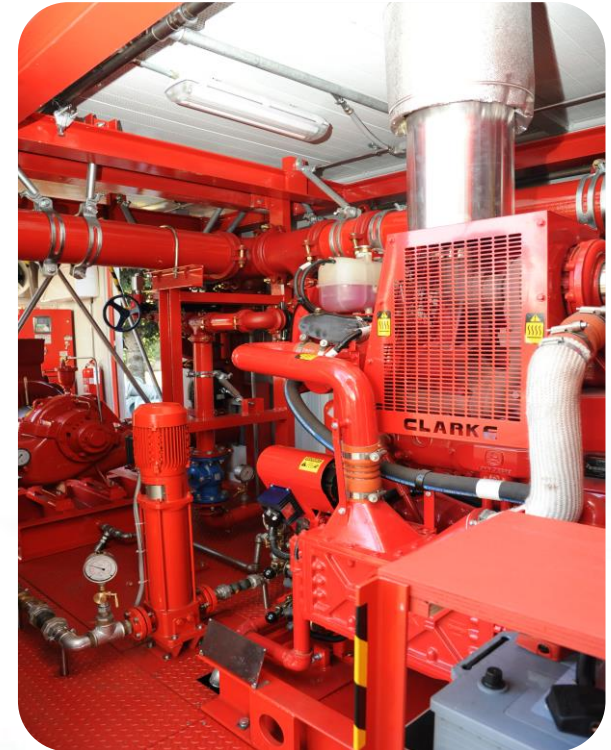
VIEWS TAKEN FROM OUR CLIENT





FIREFIGHTING SYSTEMS

VIEWS TAKEN FROM OUR CLIENT





FIREFIGHTING SYSTEMS OUTDOOR VIEWS

APS



COMCAVI



SAIPEM



TAMOIL



BERGER



CLF SATREM





FIREFIGHTING APPLICATIONS & REFERENCE





FIREFIGHTING APPLICATION

Oil & Gas

Customer: ANSALDO
Final destination: Sonelgaz, Algeria
Product: n.6 Pumps, Horizontal

Design
Ref. Standard: NFPA20
Flow & Pressure: 1450 m³/h & 100 mt
Diesel Motor Type: Mitsubishi, 930 kW
M.V. Electric motor: Siemens, 700 kW





FIREFIGHTING APPLICATION

Oil & Gas

Customer: PETROFAC
Final destination: Tunisia
Product: N.2 Horizontal Fire-Fighting Pumps & Jockey Pumps

Design
Ref. Standard: NFPA20
Flow & Pressure: 840 m³/h & 105 mt
Diesel Motor Type: Iveco 8281 SRI 26, 391 kW

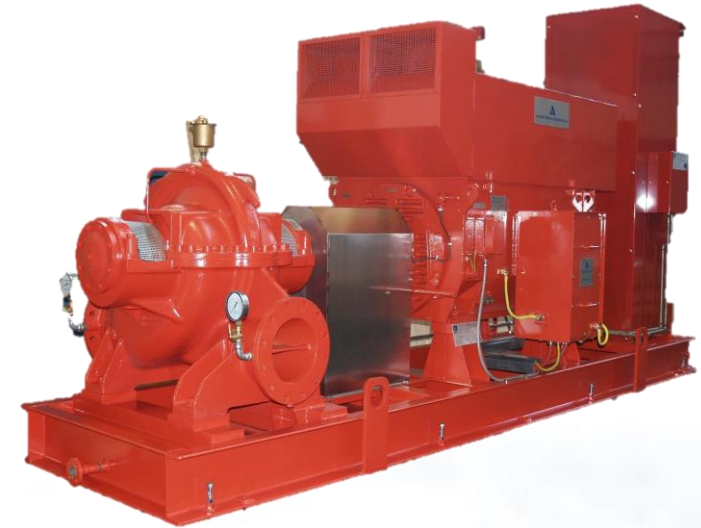




FIREFIGHTING APPLICATION REFINERY

Customer: SAMIR
Final destination: Maroc
Product: N.2 Horizontal Fire-Fighting Pumps
& Jockey Pumps

Design
Ref. Standard: NFPA 20
Flow & Pressure: 681 mc/h – 113 mt.
Diesel Motor Type: Cummins VTA25G5
M.V. Electric motor: Ansaldo, 710 kW



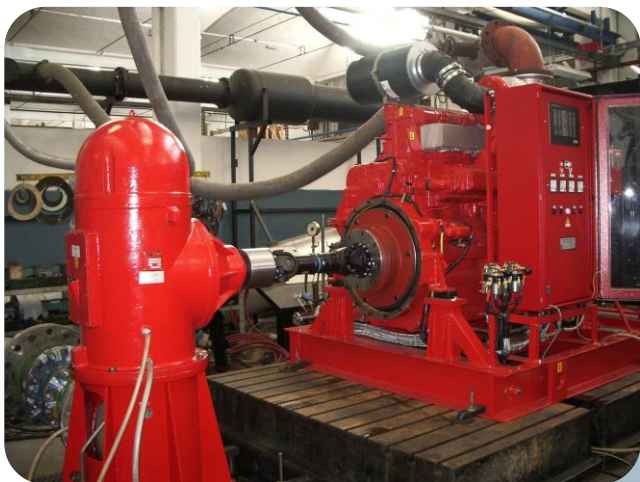


FIREFIGHTING APPLICATION

LPG Storage Terminal

Customer: SIRAGA FRANCE
Final destination: Nigeria
Product: N.4 Vertical Fire-Fighting Pumps

Design
Ref. Standard: NFPA 20
Flow & Pressure: 1075 mc/h – 90 mt.
Diesel Motor Type: Mitsubishi S6R2 PTA – 575 kW





FIREFIGHTING APPLICATION

PETROLCHEMICAL

Customer: ABB
Final destination: Algerie
Product: N.6 End-Suction Fire-Fighting Pumps
& Jockey Pumps

Design
Ref. Standard: API610 / NFPA 20
Flow & Pressure: 220 mc/h – 131 mt.
Electric Motor Type: ABB, 315 kW





FIREFIGHTING APPLICATION REFINERY

Customer: P.E.C.
Final destination: Milazzo - Italy
Product: Vertical & Horizontal pump-sets

Design
Ref. Standard: NFPA20
Flow & Pressure: 750m³/h & 110 mt
Diesel Motor Type: Clarke JX6H UF70, 429 kW





FIREFIGHTING APPLICATION

LPG / ONSHORE

Customer: NAVGAS LTD
Final destination: Apapa Lagos - NIGERIA
Product: n.4 Diesel Pump system

Design
Ref. Standard: NFPA20 FM
Flow & Pressure: 1075m³/h & 90 mt
Diesel Motor Type: MITSUBISHI, 575 kW





FIREFIGHTING APPLICATION OFFSHORE

Customer: INTERMARE SARDA
Final destination: Platform AWA PALOKOU, Congo
Product: n.1 Pumps, Vertical design

Design
Ref. Standard: NFPA20
Flow & Pressure: 560m³/h & 100 mt
Diesel Motor Type: Iveco 8281 SRI40, 300 kW



SINCE 1995





FIREFIGHTING APPLICATION OFFSHORE

Customer: NUOVA OLMEC
Final destination: Platform , Congo
Product: n.2 Pumps, Vertical design

Design
Ref. Standard: NFPA20
Flow & Pressure: 105m³/h & 60 mt
Electric Motor Type: Aturia H860, 45 kW



SINCE 1995





FIREFIGHTING APPLICATION OFFSHORE

Customer: EXXON Mobile
Final destination: TAPIS Plattform - Malaysia
Product: n.3 Pumps, Vertical design Super Duplex

Design
Ref. Standard: NFPA20 – ATEX Zone 2
Flow & Pressure: 410 m³/h & 112 mt
Diesel Motor Type: Caterpillar 3412C 551 kW



SINCE 1995





FIREFIGHTING APPLICATION OTHER INSTALLATION

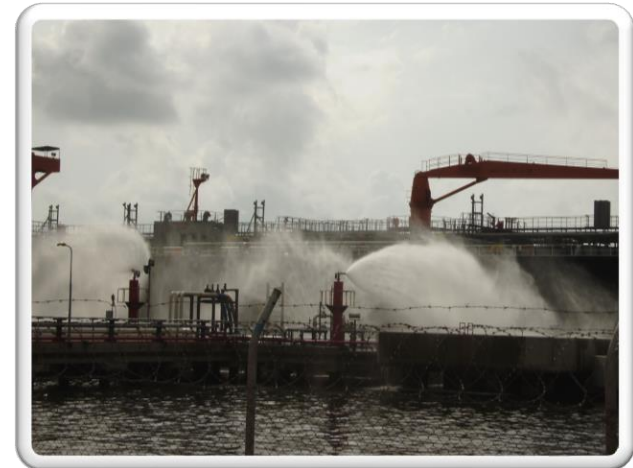




SITE SERVICES

START-UP, SAT AND MAINTENANCE

Service team of 10 people for pump and firefighting system start-up, site acceptance test and maintenance.





MANUFACTURING PLANTS





GRUPPO ATURIA

“ IN THE HEART OF EUROPE ”



Mulhouse (FRANCE)



Brugg (SWITZERLAND)



Gessate (MILANO)



Taglio di Po (ROVIGO)





GESSATE (MILANO) MANUFACTURING PLANT

- **Headquarter**
- **Production site for:**
 - **Large Size Pumps**
 - **Engineered Pumps**



Covered Surface 20.000 m²



GESSATE (MILANO) MANUFACTURING PLANT

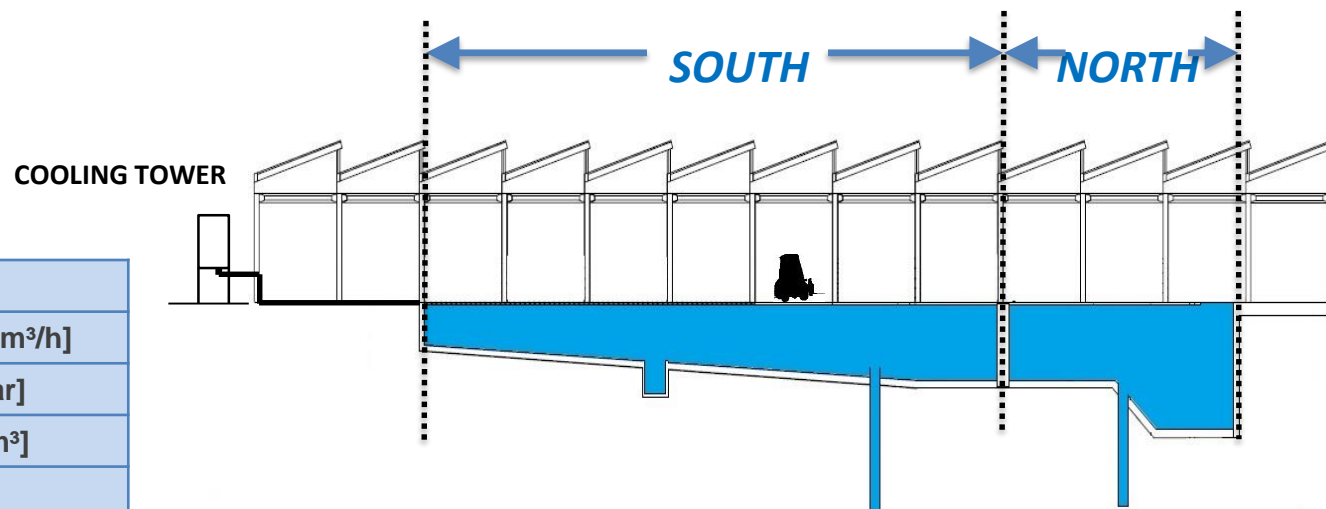


Gruppo Aturia





GESSATE (MILANO) TEST ROOM PLANT



HYDRAULIC DATA

<input type="checkbox"/> MAX. CAPACITY	20000 [m ³ /h]
<input type="checkbox"/> MAX. PRESSURE	150 [Bar]
<input type="checkbox"/> PIT VOLUME	1000 [m ³]
<input type="checkbox"/> MIN. NPSH	0,5 [m]

ELECTRICAL MOTOR

LOW VOLTAGE

MEDIUM VOLTAGE

<input type="checkbox"/> ELECTRIC POWER	up to 1500 [kW]	up to 1500 [kW]
<input type="checkbox"/> VOLTAGE	all up to 690 [V]	3300 / 5000 / 6600 [V] other Voltage on request
<input type="checkbox"/> FREQUENCY	All	All

DIESEL ENGINE DATA

<input type="checkbox"/> MAX. DIESEL POWER	1500 [kW]
--	-----------



GESSATE (MILANO)

TEST ROOM PLANT





TORINO

FIREFIGHTING DIVISION

- Production site for:
 - Firefighting products
 - Firefighting application

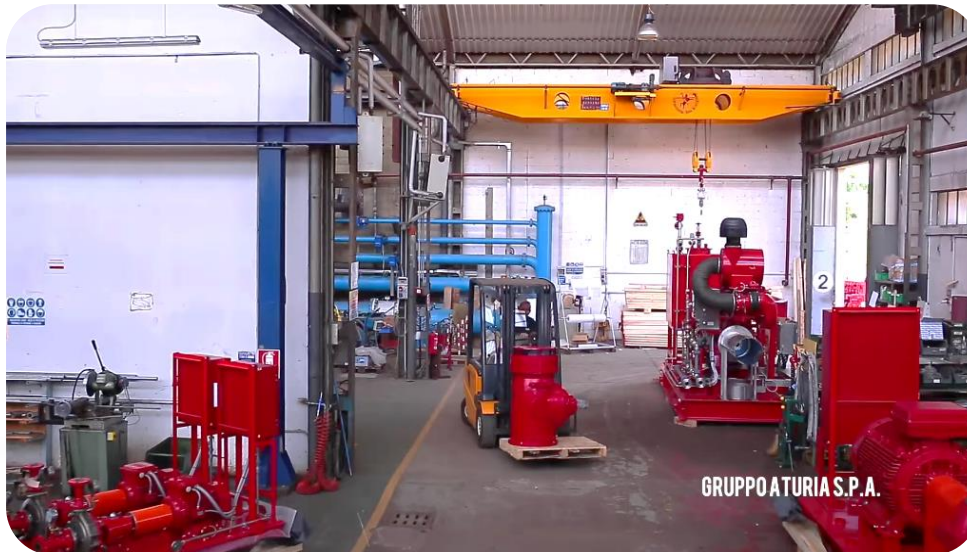


Covered Surface 3.000 m²





TORINO MANUFACTURING PLANT





TORINO TEST ROOM PLANT

TEST ROOM – Characteristic Data

□ MAX. DIESEL POWER		1500 [kW]
□ MAX. ELECTRIC POWER (*)	With inverter	630 [kW]
	DOL	100 [kW]
□ MAX. VOLTAGE (*)	(50 Hz)	400 [V]
□ MAX. CAPACITY		8000 [m³/h]
□ MAX. PRESSURE		16 [Bar]
□ TANK CAPACITY		250 [m³]
□ MIN. NPSH		1 [m]





TAGLIO DI PO (ROVIGO) MANUFACTURING PLANT

Production site for:

- Magnetic Drive Pumps
- Small Size Pumps



Covered Surface 3.000 m²





TAGLIO DI PO (ROVIGO)

MANUFACTURING & TEST ROOM PLANT





INFORMATION AND COMMUNICATIONS TECHNOLOGY ITC





GRUPPO ATURIA SOFTWARE



ICT are cloud-oriented.

Systems are hosted in a TIER III Data Center.

Gessate Plant is optic-fiber wired to allow a fast sharing of data, drawings and pictures, both inside and outside the plant.



SAP – Integrated Enterprise Resource Planning System, implemented in Aturia Milan, Turin, Rovigo and Rutschi France and Switzerland.



Salesforce - cloud-based customer relationship management (CRM) software solution.

It is currently being implemented.

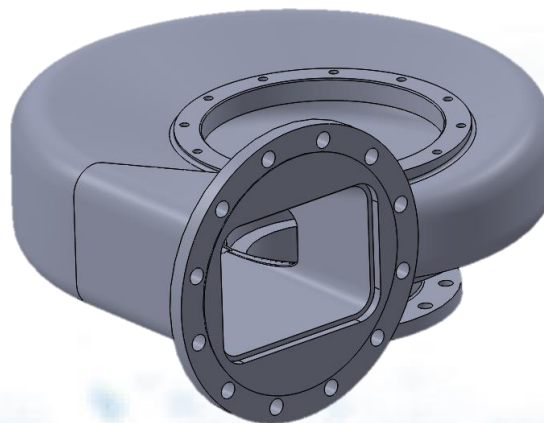
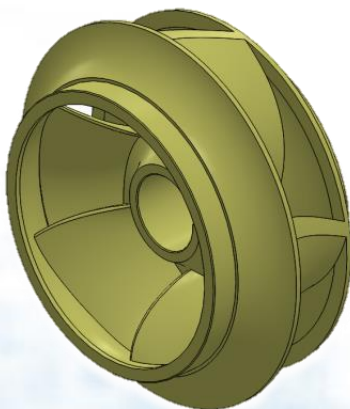




GRUPPO ATURIA SOFTWARE



Solid Works 3D
SOLIDWORKS® CAD software delivers powerful 3D design
functionality and the benefits design solution for rapid creation of parts
and assemblies.





GRUPPO ATURIA SOFTWARE

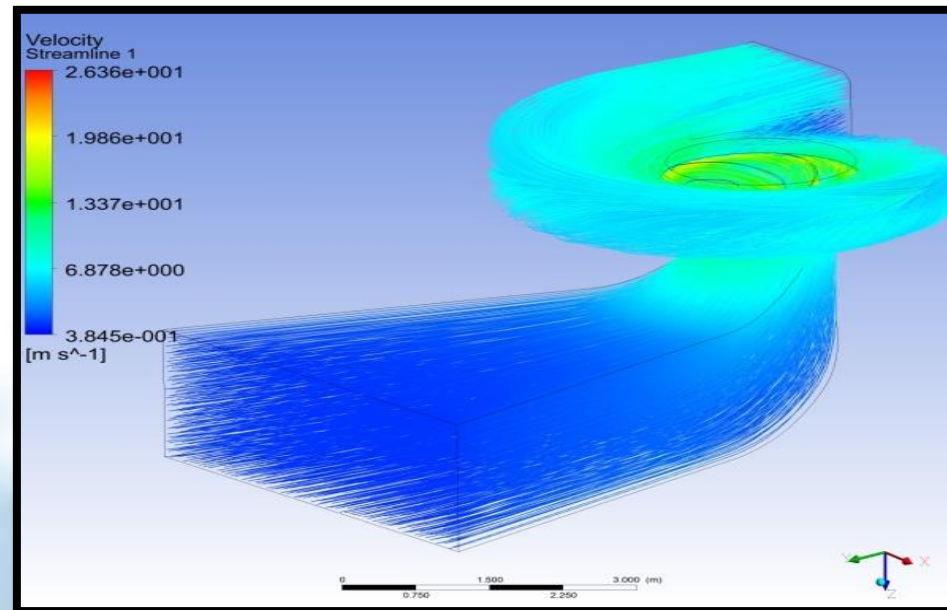
ANSYS

Fluids

ANSYS CFX

Computational Fluid Dynamics (CFD) is a tool that It provides insights to help optimization of the design.

ANSYS CFD goes results to deliver accurate predictions of fluid interactions. These analysis of pump's hydraulic reveal that even experienced engineering analysts can otherwise miss.





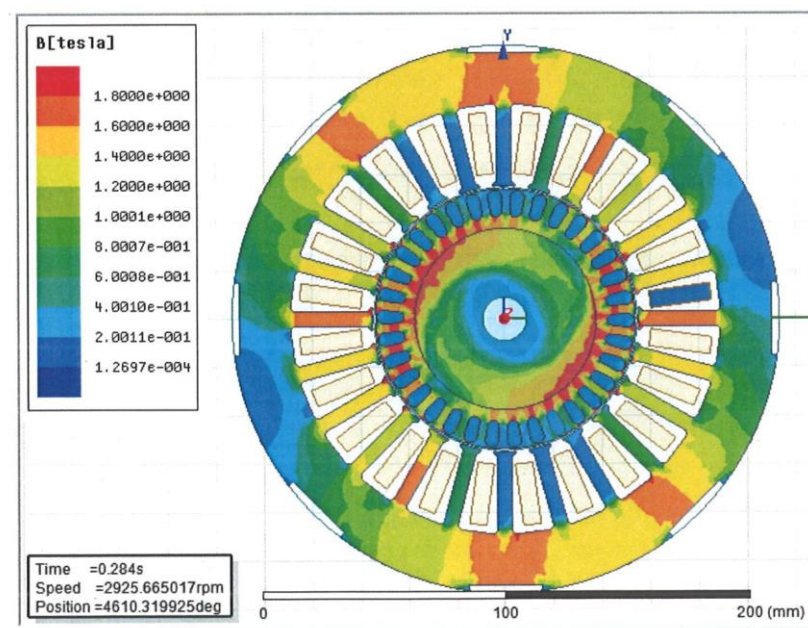
GRUPPO ATURIA SOFTWARE



ANSYS Maxwell

Electromagnetic field simulation for motor design.

Magnetical induction in rotor and stator back:



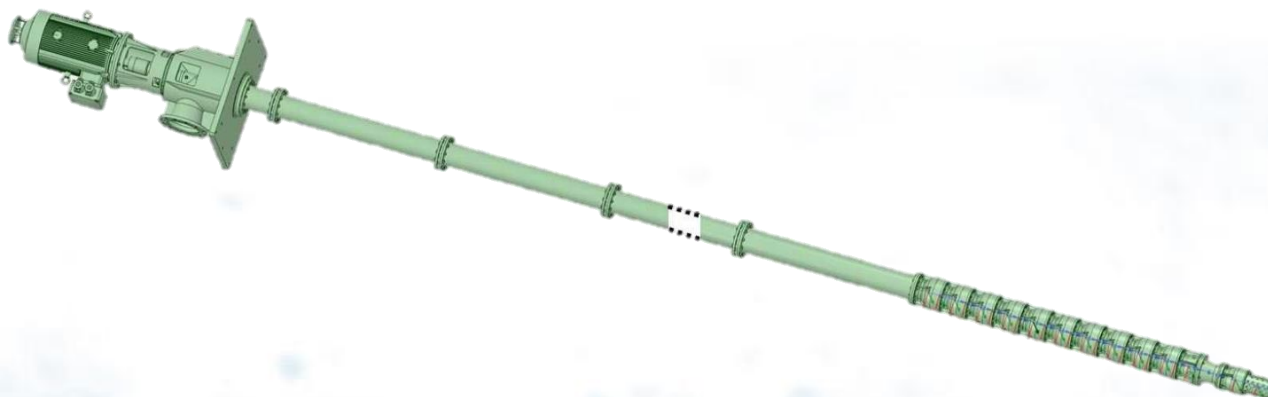


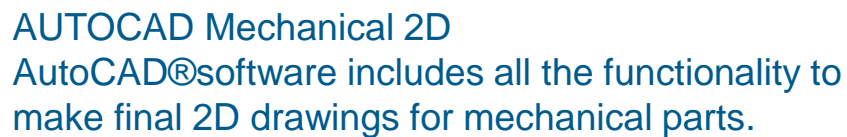
GRUPPO ATURIA SOFTWARE



ANSYS Structures

Analysis software is used to verify structural design with the finite element analysis (FEA) and to optimize the mechanical product designs.







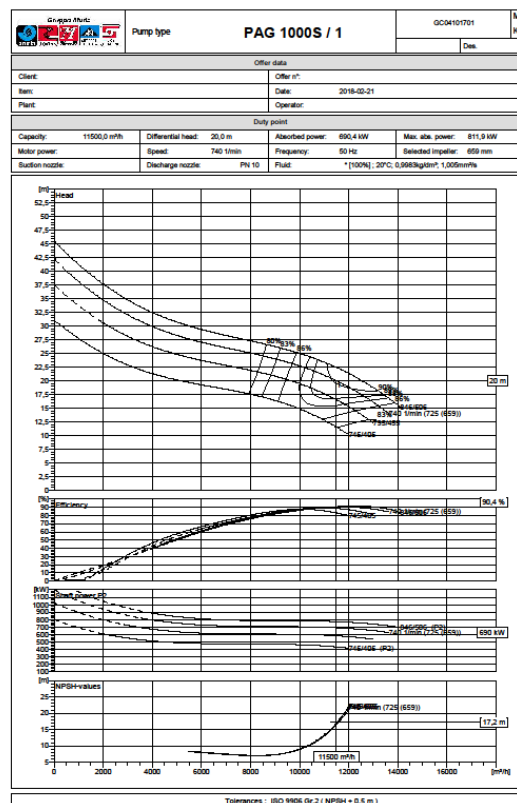
GRUPPO ATURIA SOFTWARE

SPAIX

It is the software used to the selection of the pumps for the required applications and performances. (Datasheet, pump performance)



Gruppo Aturia		Pump type	PAG 1000S / 1	Technical data sheet	M K
Offer data					
Client:		Offer n°:			
Item:		Date: 2018-02-21			
Plant:		Operator:			
Operating Data					
1	Pumped fluid	41	Fluid flow	11500,0 m³/h	81
2	Solid content type	42	Fluid head	20,0 m	82
3	Content of solids %	43	Speed	740 1/min	83
4	Corrosive agent type %	44	Efficiency	80,4 %	84
5	Fluid pH	45	Shaft power	690,4 kW	85
6	Operating temperature	46	Max shaft power	812 kW	86
7	Specific gravity	47	Suggested motor		87
8	Vapour pressure	48	NPSH required	17,2 m	88
9	Kinematic viscosity	49	Max operating pressure	4,2 bar	89
10	Requested flow	50	Max differential pressure	4,1 bar	90
11	Discharge head	51	Number of stages	1	91
12	Geodetic head	52	Impeller type		92
13	Suction pressure	53	Maximum	676,0 mm	93
14	Discharge pressure	54	Impeller diameter	Selected 655,1 mm	94
15	NPSH available	55	Minimum	575,0 mm	95
16	Rated voltage	56	Operating point	11500,0 m³/h	96
17	Rated frequency	57	Flow	Maximum 13637,3 m³/h	97
18	Altitude over sea level	58	Minimum	655,4 m³/h	98
19	Ambient temperature	59	Operating point	20,0 m	99
20	Area classification	60	Head	Maximum 39,5 m	100
21		61	Minimum	14,0 m	101
22		62	Dimension		102
23		63	Nominal pressure		103
24		64	Dimension		104
25		65	Nominal pressure	PN 10	105
26		66	Material		106
27		67	Material		107
28		68	Material		108
29		69	Material		109
30		70	Material		110
31		71	Material		111
32		72	Material		112
33		73	Material		113
34		74	Material		114
35		75	Material		115
36		76	Material		116
37		77	Material		117
38		78	Material		118
39		79	Material		119
40		80	Material		120
Remarks					
121					
122					
123					
124					
125					
126					
127					





REVENUES





GRUPPO ATURIA

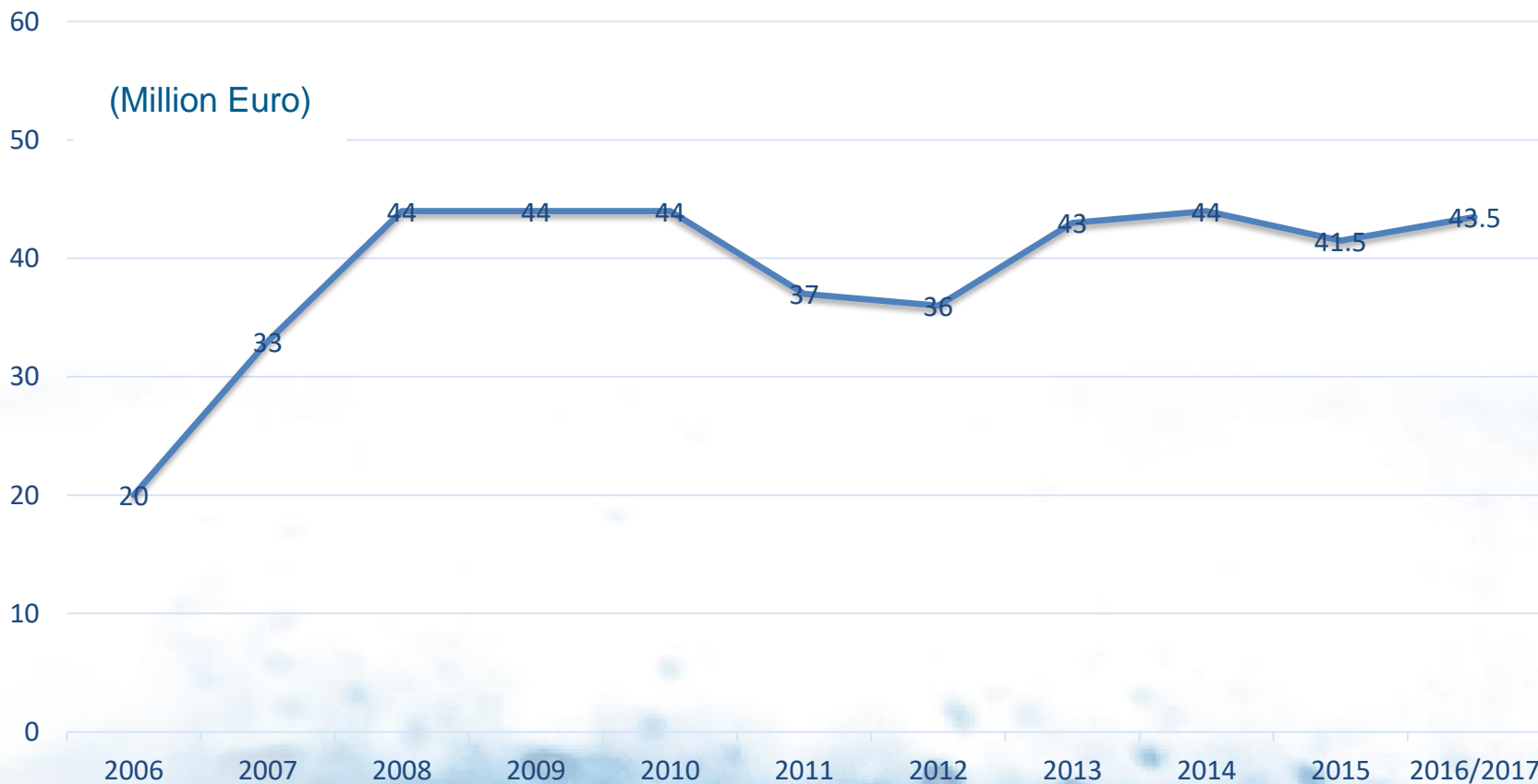
REVENUES APRIL 2016 / March 2017

Gruppo Aturia S.p.A Italy	• 26,6 Million Euro
Pompes Rüttschi SAS France	• 9,8 Million Euro
Rüttschi Fluid AG Switzerland	• 8,4 Million Euro
GROUP	• 43,5 Million Euro



GRUPPO ATURIA

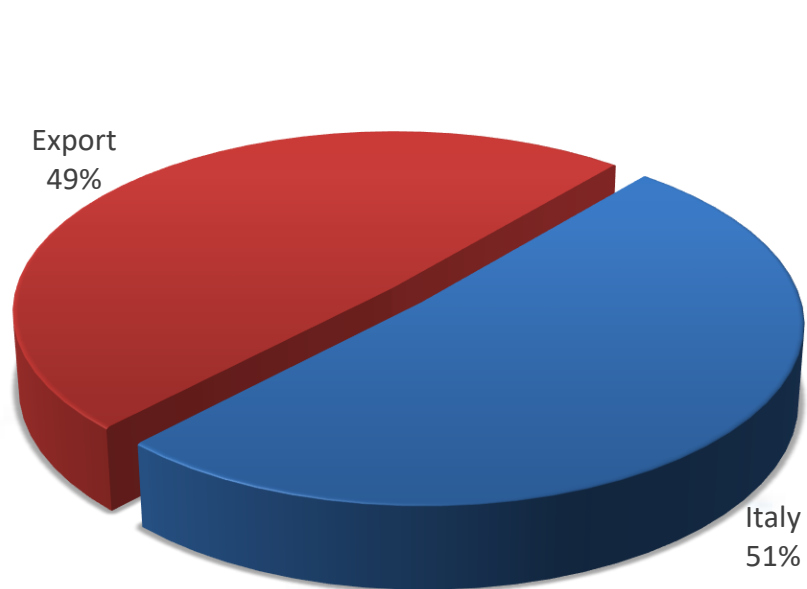
REVENUES 2006 / 2017



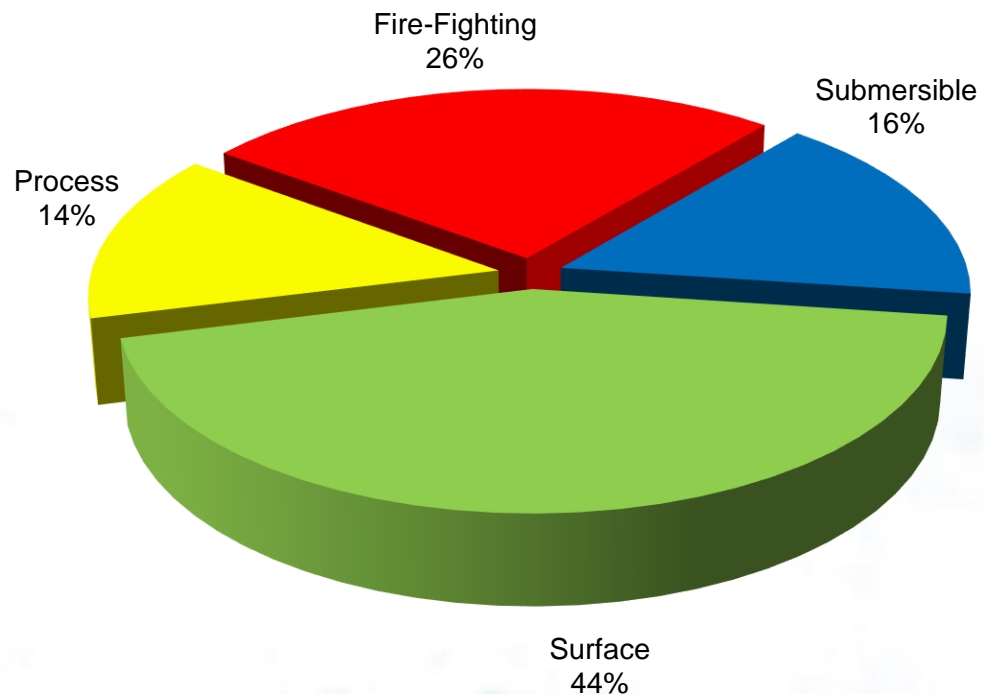


GRUPPO ATURIA

AVERAGE REVENUES 2017



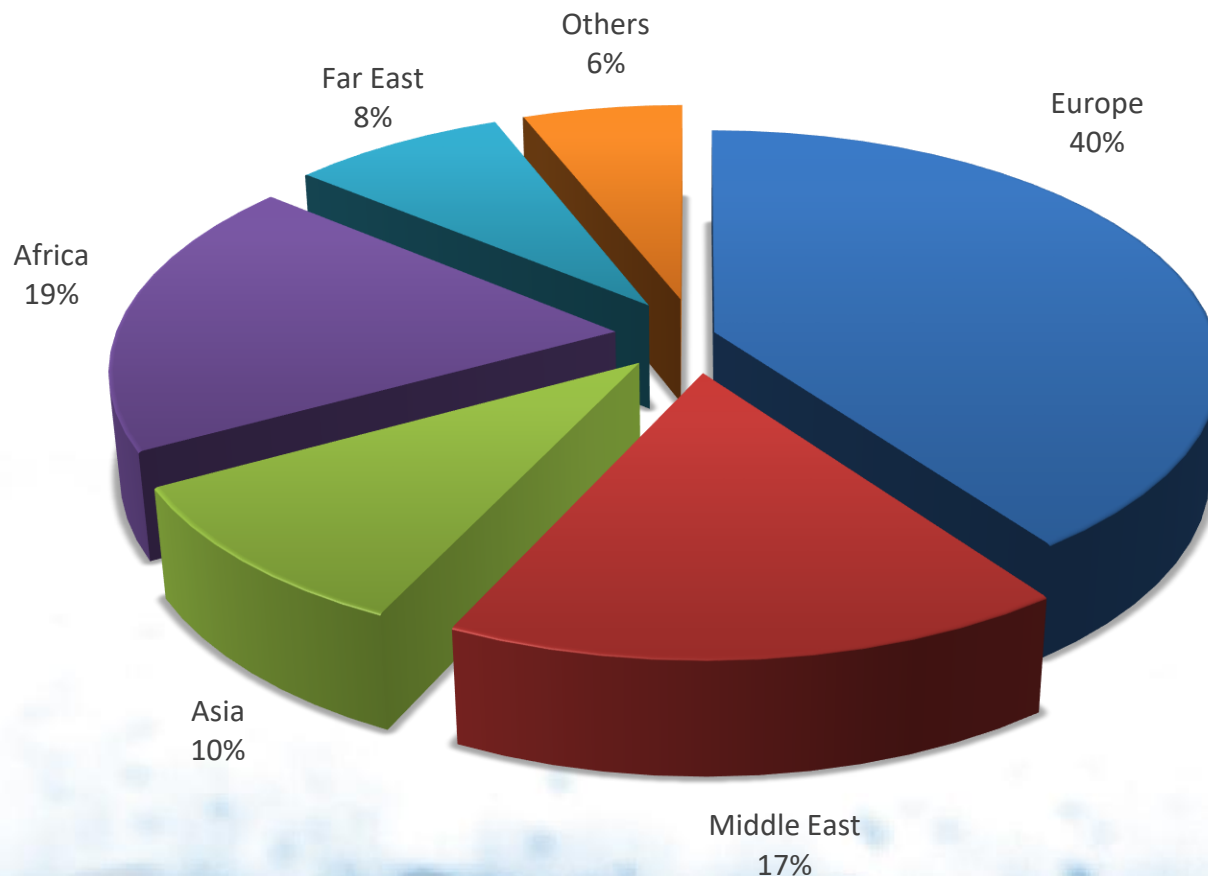
■ Italy ■ Export





GRUPPO ATURIA

EXPORT SALES 2010 – 2015



■ Europe ■ Middle East ■ Asia ■ Africa ■ Far East ■ Others





QUALITY



CERTIFIED QUALITY SYSTEM

QUALITY CONTROL



CERTIFICATE OF APPROVAL

This is to certify that the Quality Management System of:

Gruppo Aturia SpA
Piazza Aturia, 9
20060 Gessate (Milano) – Italia

has been approved by Lloyd's Register Quality Assurance
to the following Quality Management System Standards:

ISO 9001:2008

The Quality Management System is applicable to:

**Design, engineering, manufacture, and servicing of submersible
pumpsets and surface pumpsets for building, water supply,
industry, marine application and process pumpsets for refinery
and petrochemical plants, fire fighting pumpsets and systems.**

This certificate is valid only in association with the certificate schedule bearing the same number on
which the locations applicable to this approval are listed.

Approval Certificate
No: LRC 0160262/QMS/U/EN

Original Approval: 21st April 1997

Current Certificate: 21st April 2015

Certificate Expiry: 20th April 2018

Issued by: Lloyd's Register Quality Assurance Italy Srl
for and on behalf of Lloyd's Register Quality Assurance Limited



This document is subject to the provision below
Via Cadorna, 69 20090 Vimodrone (MI)

For and on behalf of 1 Trinity Park, Bickenhill Lane, Birmingham, B37 7ES, - United Kingdom

This approval is carried out in accordance with the LRQA assessment and certification procedures and monitored by LRQA.

The use of the UKAS Accreditation Mark indicates Accreditation in respect of those activities covered by the Accreditation Certificate Number 001

ISO 9001 certified

Since April 1997

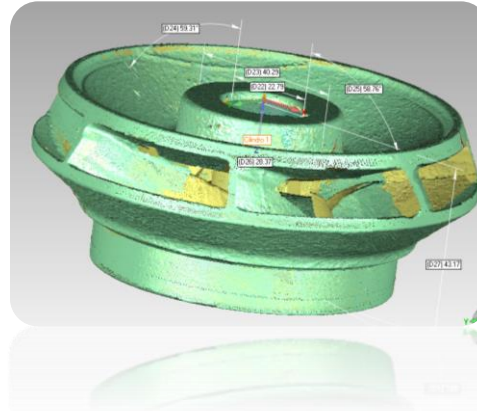


Gruppo Aturia



PRODUCTION CONTROL

DIMENSIONAL CHECK



PRODUCTION CONTROL

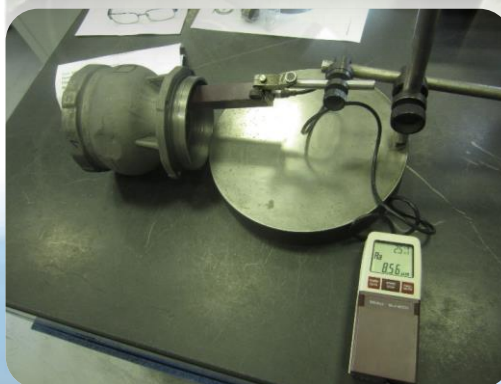
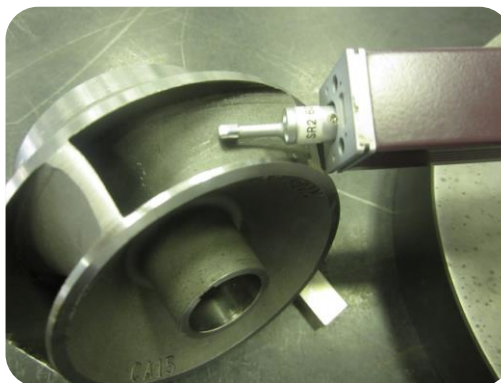
MECCANICAL DATA CHECK



**MOBILE METAL
ANALYZERS**



**PORTABLE SURFACE
ROUGHNESS TESTER**



**PORTABLE HARDNESS
TESTER**

PRODUCTION CONTROL TEST ROOM INSTRUMENTS

MULTIPURPOSE DUAL CHANNEL VIBROMETER FOR VIBRATION ANALYSIS AND BALANCING



HAND-HELD ANALYZER NOISE TESTER



COATING THICKNESS GAUGE

GRUPPO ATURIA S.p.A

“Working Together Means Winning”

