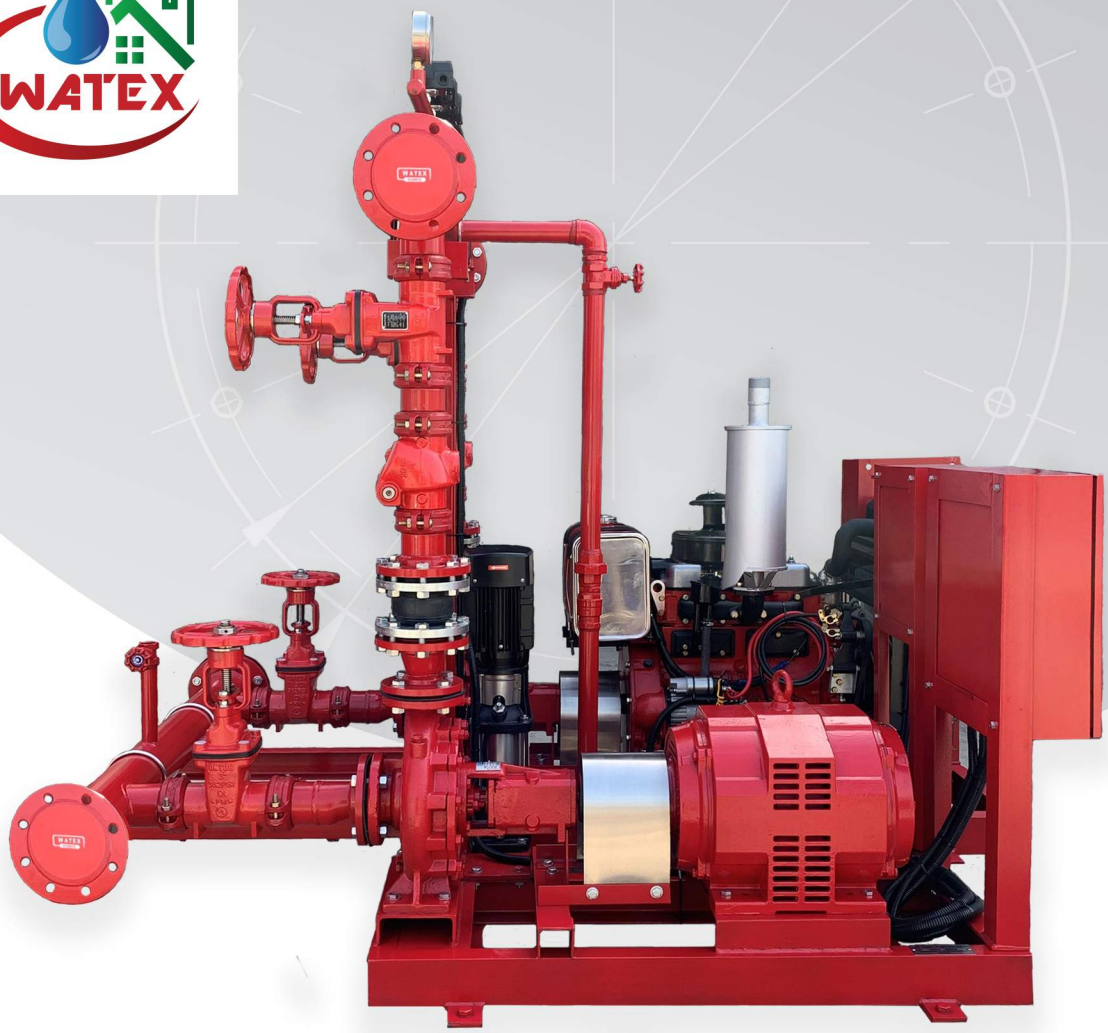
NON UL FIRE PUMP SUBMITTAL



Fire Pump System

FLOW RATE(GPM)	PRESSURE(BAR)
250	8

ELECTRIC DRIVEN + DIESEL DRIVEN + JOCKEY PUMP

Fight Against Fire

www.watexindustries.com

COMPANY PROFILE

WATEX PUMPS

P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com

WATEX

Fight Against Fire

www.watexindustries.com


WATEX

WATEX

Fight Against Fire

WATEX Pumps Industries, established in 2009 has since been providing reputable firefighting equipment that is consumer friendly and at reasonable prices.

We feel privileged to offer extensively engaging design, assembly as well as marketing high technology pumping systems and services to the ever-increasing infrastructural demands of UAE. WATEX Pumps supplies these products to authorities like DEWA, SEWA etc. as well as offering pumping solutions to local municipalities.

We strive to provide the latest technology and internationally-approved brands at affordable prices to all our customers. We believe in creating and maintaining consumer relationships in order to build mutual trust.

Our Vision

Thinking, Planning, Implementing & Focusing on high manufacturing Standards to prepare every place safe for you

Our Mission

To spread power of water against fire by manufacturing pumps with high quality & service for life according to global standards

ABOUT US

WATEX Pumps Industries is privileged to be associated with the ever-increasing infrastructural demands of UAE.

WATEX Pumps industries, established in 2009 has earned a reputation pumps and fire fighting products at competitive pricing with the added benefit of a customer friendly environment.

We strive to provide the latest technology and international approved brands at affordable prices to all our customers. Our core competency is our customer relationship. We have built a trust with our everyday consumer, which has provided us with regular business for over two decades.

Why Choose Us

We strongly believe in great customer service and work towards the same. In doing so, we offer extended warranties and special offers that are provide by our suppliers and product manufacturers. Our staff is educated about the products are available for any questions or concerns you might have. WATEX PUMPS INDUSTRIES can offer to you a wide range of different types of pumps to be suitable for all applications, this all is between your hand by following the lastest updates of Global standerds we can ensure the 100% qualified pumps.

It is our mission to effectively provide high quality pumping systems in the United Arab Emirates and contribute to a better quality of life.

OUR SERVICES

- **Firefighting pumps**
- **Water pumps**
- **Industrial Pumps**
- **Firefighting equipment**
- **Installation**
- **Testing commissioning**
- **Maintenance services**
- **Repairing services**
- **AMC**
- **Supply of assembled control panel**

Available In:

- UAE

Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al Quwain, Ras Al Khaimah and Fujairah

- JORDAN

Amman

CEO's Message

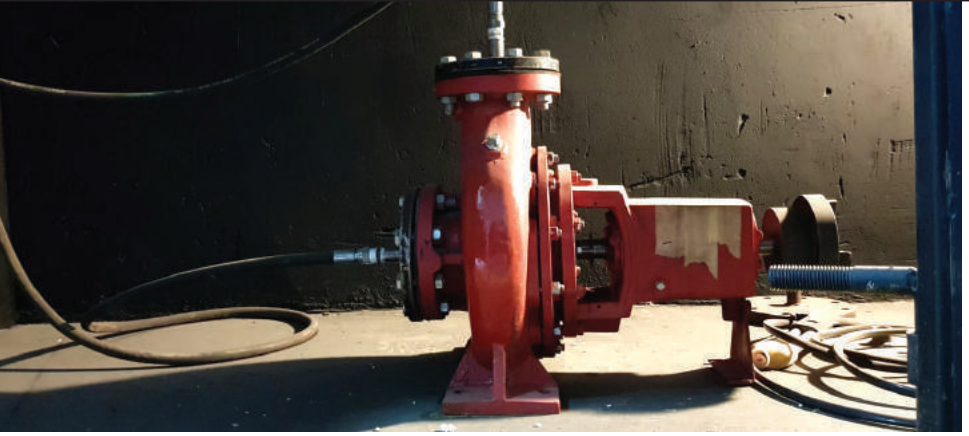
The company highly values its clients, viewing the clients of any company as vital to the company's success. It therefore places top priority on seeking out the most highly qualified and skilled employees to provide its clients needs on a continuous & regular basis.

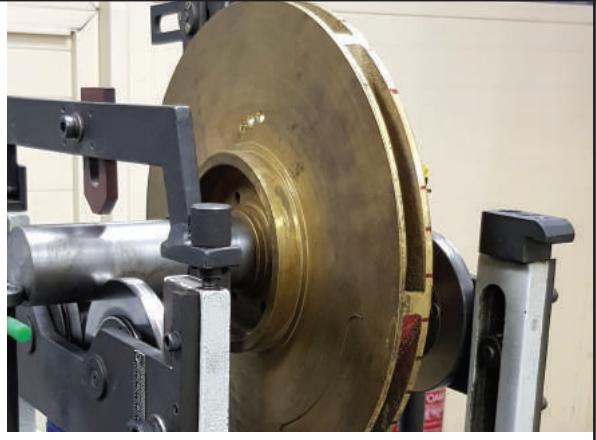
We are highly proud to have been awarded UL, FM, LPCB & ISO certifications an internationally recognised standards that ensures services meet the needs of clients through an effective quality management system.

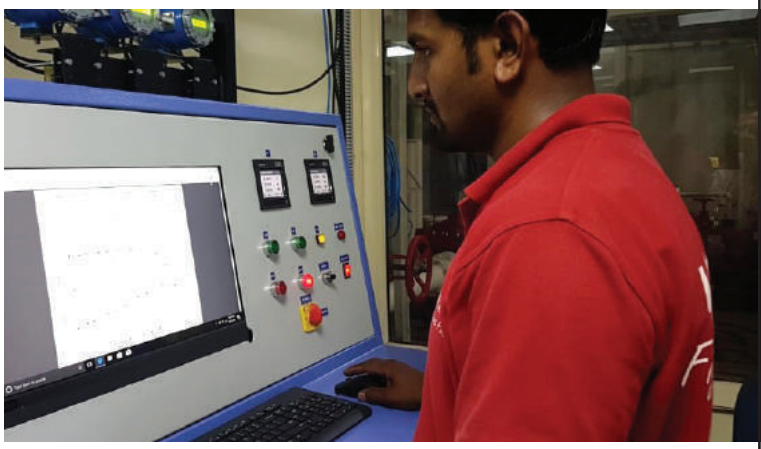
Eng. Nedal Mahmoud
MD

PRODUCTION FACILITY

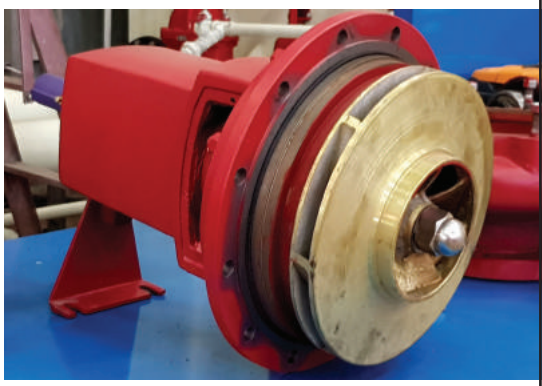
Design Manufacturing Testing







Fight Against Fire



Operation Test

Our pump is to be subjected to an operation test at rated speed under applicable requirements. Performance carve are plotted showing the efficiency, brake horsepower (KW) and total head developed at shutoff at rated capacity at 150 percent of rated capacity and at selected intermediate capacities exceeding 150 percent of rated capacity.

Impeller & Shaft Balancing Test

The sample impeller is to be installed in a calibrated dynamic balancing test apparatus. The impeller is to be evaluated in two correction planes as described in the standard for mechanical vibration -balance quality requirements of rigid rotors.

Hydrostatic Pressure Test

Readings are to be taken of the maximum impeller imbalance and the location of the imbalance in the impeller for each plane.

There still be no rupture or leakage through the castings at the test pressure to be suitable as our fire fighting product.

CERTIFICATES

Industrial License / رخصة صناعية

Regular License - رخصة عاديه

License No. **73793** رقم الرخصة

ACCI No. **86697** رقم الغرفة

Register No. **76961** رقم السجل التجاري

License Details	Renew License / تجديد رخصة	تفاصيل الرخصة
Trade Name **WATEX PUMPS INDUSTRIES**		الاسم التجاري **واتكس لصناعة المضخات**
Legal Form **Sole Establishment**		الشكل القانوني **مؤسسة فردية**
Expire Date **2021-12-03** تاريخ الانتهاء		Issue Date **2015-12-07** تاريخ الاصدار

Role / الصفة	Passport / رقم الجواز	Nationality / الجنسية	Member Name / اسم صاحب التراخيص
مالك Owner - Proprietor	CP8909715	الإمارات العربية المتحدة United Arab Emirates-The UAE	امينه حسين عبدالله محمد المرزوقي AMINA HUSAIN ABDULLA MOHAMED ALMARZOOQI
مدير Manager - Director	R0181839	الدومنيكا Dominica	محمود نضال محمود احمد MAHMOUD NEDAL MAHMOUD AHMAD

Activites	الانشطة
Pumps Manufacturing	صناعة المضخات

P.O. Box صندوق البريد	Contract Expiry Date تاريخ انتهاء عقد الايجار	Lessor/ اسم المؤجر	Address / العنوان
33404	2021-02-14	حسن عبدالله محمد السعيدي	معرض رقم 16، عجمان الصناعية1 Exhibition-Showroom No. 16, Ajman Industrial1

ملاحظات

Voucher No. 30197025 رقم الايصال | Voucher Date. 2020-12-15 تاريخ الايصال | Emp No. رقم الموظف

Print Date **2020-12-15** تاريخ الطباعة

CERTIFICATE OF REGISTRATION

WATEX PUMPS INDUSTRIES

Exhibition-Showroom No. 16, Ajman Industrial 1, Ajman, UAE.

Has been assessed by UCS and found to be in compliance with the requirements of the management system standard.

ISO 9001:2015
Quality Management System

Scope of Registration

Design, Manufacture, Assemble, Balancing, Lathing, Supply, Installation, Testing and commissioning of fire pumps, Water pumps, Fire and water control panels, Firefighting systems, fire alarm systems and accessories, Fire hose reels, Cabinets, Extinguishers, Valves and Doors.

Certificate Number:	UCSQMS2012120
Registration Date:	17/12/2020
Expiry Date:	17/12/2023
First Surveillance Audit:	16/12/2021
Second Surveillance Audit:	16/12/2022

Universal Certification & Services FZE
Authorized Signatory

MSCB157

دولة الإمارات العربية المتحدة

الجهة المصدرة: وزارة الإقتصاد

رقم الشهادة : 2627482

تاريخـــهـــا : 06-10-2021

United Arab Emirates

اسم الفـــرع : دبي

13679046

شهـــــادة منشـــأ

بموجب أحكام اتفاقية تيسيرو تنمية التبادل التجاري بين الدول العربية

1- المصدر وعنوانه كاملا:

واتكس لصناعة المضخات

33404 971552148105 97167316867 عجمان

2 - المنتج وعنوانه كاملا:

واتكس لصناعة المضخات

أم القيوين 971552148105 97167316867 33404

3- المستورد وعنوانه كاملا:

شركة المحبة للاستيراد

00201224229353 00225790840 22شارع رشدي – ارض الشركه الشرابيه - جمهورية مصر العربية مصر

4 - بلد المنشأ :

الإمارات العربية المتحدة

5 - تم تطبيق التراكم مع دول أخرى؟

نعم	
لا	√
اسم الدولة	

6- تفاصيل الشحن:

شحن بحرى

7 - ملاحظات :

8 - وصف السلع، العلامة التجارية (ان وجدت) ،عدد ونوع وأرقام الطرود:

84131910 مضخات للسوائل ، وإن كانت مزودة بأجهزة قياس ؛ رافعات سوائل. - - - مضخات الحريق -1
مضخات حريق ذات قدرات متنوعه نوع عادي (كهرباء+ديزل+جوكي)وملحقاتها WATEX PUMPS

9 - الوزن القائم (كجم) أو مقاييس أخرى (لتر، متر مكعب إلخ):

كجم 5950.000

10 - رقم وتاريخ الفاتورة (الفواتير):

132 - 16/09/2021

11- إقرار وتعهد المصدر:

أقر بأن جميع البيانات المذكورة أعلاه صحيحة
وان السلع الوارد وصفها اعلاه مستوفاه
للشروط والمعايير اللازمة لإكساب صفة المنشأ:

المكان دبي

التاريخ 06-10-2021

التوقيع

12 - توقيع وخاتم الجهة المصدرة للشهادة :

التوقيع

الخاتم

التاريخ 06-10-2021

13 - تصديق الجهة الحكومية المختصة :

التوقيع

الخاتم

التاريخ 06-10-2021

التحقق اللاحق (يطلب عند الضرورة)

- طلب تحقق مقدم إلى :	- نتيجة التحقق :
مطلوب التحقق من صحة هذه الشهادة ودقتها : المكان والتاريخ : ..... التوقيع : ..... الخاتم :	- بعد التحقق تبين أن هذه الشهادة [1]: ☐ مصدرة من الجهة المختصة وأن المعلومات الواردة بها دقيقة . ☐ لا تستوفي متطلبات صحة ودقة البيانات (أنظر الملاحظات المرفقة) المكان والتاريخ : ..... التوقيع : ..... التاريخ: 10 JAN 2021 الخاتم

(1) ضع العلامة X في الخانة الملائمة .

ملاحظات

1- يحظر تضمين الشهادة كلمات ممحوة أو متداخلة الكتابة ، وإذا ما أريد إدخال تعديل ما ، تمحى البيانات الخاطئة وتضاف التصحيحات اللازمة. ويجب على الشخص الذى ملأ الشهادة التوقيع بحروفه الأولى على التعديلات، كما ويجب أن تصدق عليها السلطات الحكومية المختصة في بلد الإصدار .

2- يحظر ترك أية فراغات بين البنود المدرجة بالشهادة، ويجب أن يسبق كل بند رقم له. وأن يوضع خط أفقي بعد كتابة آخر بند وأن يتم شطب أية فراغات بطريقة تجعل من غير الممكن إجراء أية إضافات لاحقة .

3- يجب وصف السلع طبقاً للعرف التجارى (وفقاً لرمز النظام المنسق) إن أمكن على أن تذكر جميع تفاصيلها تسهيلاً لعملية التعرف عليها .

4- يعبأ الحقل رقم (12) إذا كانت الجهة التى أصدرت الشهادة غير الجهة المصدقة لها .

UNITED ARAB EMIRATES
MINISTRY OF ECONOMY

الإمارات العربية المتحدة
وزارة الاقتصاد

الرقم: ش م /-2021/28

التاريخ: 2021/05/03

إفادة لمن يهمه الأمر

تفيد وزارة الاقتصاد بأن السادة / واتكس لصناعة المضخات

مرخصه من الجهات المختصة بدولة الإمارات العربية المتحدة، وأنها تقع خارج المنطقة الحرة؛ وأن منتجاتها متوافقة مع قواعد المنشأ الدول العربية.

وقد أعطيت لها هذه الإفادة بناء على طلبها دون تحمل الوزارة أدنى مسؤولية تجاه الغير.

وتفضلوا بقبول وافر الاحترام

إدارة التسجيل التجاري وشهادة المنشأ

مكتب: دبي

ملاحظة:

تمنح هذه الإفادة للمصانع الوطنية الإماراتية القائمة خارج المنطقة الحرة لمرة واحدة فقط، والتي تشحن منتجاتها عن طريق ميناء جبل علي بدبي، على أن ترسل نسخة منها لنقطة الاتصال في الوزارة.

United Arab Emirates

Ministry of Interior

General Directorate of Civil Defense

General Department of Civil Defense - Ajman

دولة الامارات العربية المتحدة

وزارة الداخلية

القيادة العامة للدفاع المدني

الإدارة العامة للدفاع المدني - عجمان

رقم الترخيص : 2016-4-139559

سنة الترخيص : 2021

عدد التراخيص : 1

ترخيص مصنع لمعدات و أجهزة و مواد الوقاية و مكافحة الحريق

تم إصدار الترخيص استنادا إلى القرار الوزاري رقم (24) لسنة 2012 ، في شأن تنظيم خدمات الدفاع المدني

الاسم التجاري للمنشأة	واتكس لصناعة المضخات	**رقم الرخصة**	73793	**رقم السجل**	2016-4-139559
اسم صاحب الترخيص	امينة حسين عبدالله محمد المرزوقي	**الجنسية**	الإمارات العربية المتحدة		
نوع النشاط	صناعة المضخات			**منطقة النشاط**	عجمان
رقم الهاتف	0552148105	**رقم الفاكس**		**ص.ب**	78218
عنوان الشركة	البتول - عجمان الصناعية1 ، عجمان الصناعية ,1 عجمان عجمان				
الموقع و البريد الإلكتروني	ceo@watexindustries.com	www.watexindustries.com			
تاريخ تأسيس المنشأة	07/12/2015	**تاريخ الإصدار**	13/01/2021	**تاريخ الانتهاء**	05/01/2022
عدد المعدات و الأجهزة المراد ترخيصها	5				
عدد المهندسين المعتمدين	3	**عدد الفنيين المعتمدين**	5		

- تم تسديد الرسوم بإيصال رقم (10133293637035603639).

يعتمد/

رؤيتنا أن تكون دولة الإمارات العربية المتحدة من أفضل دول العالم في تحقيق الأمن و السلامة

United Arab Emirates

Ministry of Interior

General Directorate of Civil Defense

General Department of Civil Defense - Ajman

دولة الامارات العربية المتحدة

وزارة الداخلية

القيادة العامة للدفاع المدني

الإدارة العامة للدفاع المدني - عجمان

رقم الترخيص : 2016-4-139559

سنة الترخيص : 2021 **الاسم التجاري للمنشأة : واتكس لصناعة المضخات**

عدد التراخيص : 1

م	اسم المعدة/المواد/النظام	الاسم التجاري	رقم شهادة السلامة	اسم المختبر الصادر للشهادة
1	نظام مضخات الحريق : تجميع المضخة افقية بغطاء متحرك	WATEX PUMPS	QXJY.EX27018	UL, UNDERWRITERS LABORATORIES INC, USA
	رقم الموديل : WS 80-270 , WS 100-310 , WS 100-360 , WS 125-290 , WS 125-360 , WS 150-460			
2	نظام مضخات الحريق : تجميع المضخة إزاحة موجبة	WATEX PUMPS	QWZU.EX27019	UL, UNDERWRITERS LABORATORIES INC, USA
	رقم الموديل : WE 50-260 , WE 65-260 , WE 80-260 , WE 100-260 , WE 50-315 , WE 65-315 , WE 80-315 , WE 100-315			
3	نظام مضخات الحريق : تجميع مضخة محرك توربين عامودي	WATEX PUMPS	QXXW.EX27224	UL, UNDERWRITERS LABORATORIES INC, USA
	رقم الموديل : 100LB-50 , 150LB-50 , 150WV-50 , 150LB-32.5 , 150WV-32.5 , 200WV-60 , 200WVX-60 , 250WV-60			

ملاحظة:

1 . يعتبر المصنع مرخص من قبل الإدارة العامة للدفاع المدني- عجمان و يحق له مزاولة نشاطه في إمارة عجمان فقط. استنادا إلى قرار مجلس الوزاري رقم (24) لسنة 2012 في شأن تنظيم خدمات الدفاع المدني للائحة التنفيذية رقم (213) لسنة 2017 . و لا يحق له مزاولة أنشطته في باقي الإمارات إلا بعد استخراج ترخيص موزع من قبل الإدارات العامة ذات الاختصاص بكل إمارة.

2 . إبلاغ الإدارة العامة للدفاع المدني في حالة تغيير أو تعديل في البيانات المتعلقة في الترخيص الصادر من قبل الإدارة العامة للدفاع المدني.

يعتمد/

رؤيتنا أن تكون دولة الإمارات العربية المتحدة من أفضل دول ا

رقم الترخيص : 2016-4-139559
سنة الترخيص : 2021 الاسم التجاري للمنشأة : واتكس لصناعة المضخات
عدد التراخيص : 1

م	اسم المعدة/المواد/النظام	الاسم التجاري	رقم شهادة السلامة	اسم المختبر الصادر للشهادة
4	نظام مضخات الحريق : تجميع مضخة محرك توربين عامودي	WATEX PUMPS	QXXW.EX27224	UL, UNDERWRITERS LABORATORIES INC, USA
رقم الموديل : 100LB , 150LB , 150WV				
5	نظام مضخات الحريق : تجميع خزان الوقود لمحرك الديزل	WATEX TANKS	EEEV.MH63509	UL, UNDERWRITERS LABORATORIES INC, USA
رقم الموديل : Above ground Flammable-liquid Tanks with or without Support 40GAL 70GAL 120GAL 180GAL 240GAL 280GAL 360GAL 440GAL 550GAL				

ملاحظة:
1 . يعتبر المصنع مرخص من قبل الإدارة العامة للدفاع المدني- عجمان و يحق له مزاولة نشاطه في إمارة عجمان فقط. استنادا إلى قرار مجلس الوزاري رقم (24) لسنة 2012 في شأن تنظيم خدمات الدفاع المدني للائحة التنفيذية رقم (213) لسنة 2017 . و لا يحق له مزاولة أنشطته في باقي الإمارات إلا بعد استخراج ترخيص موزع من قبل الإدارات العامة ذات الاختصاص بكل إمارة.
2 . إبلاغ الإدارة العامة للدفاع المدني في حالة تغيير أو تعديل في البيانات المتعلقة في الترخيص الصادر من قبل الإدارة العامة للدفاع المدني.

يعتمد/

رؤيتنا أن تكون دولة الإمارات العربية المتحدة من أفضل دول العالم في تحقيق الأمن و السلامة

DATA SHEET

WATEX PUMPS

P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com

	Vendor Ref. No.	Doc. Seq. No.	Revision No.
WATEX PUMPS		02	0

Project Name:

FIRE PUMP 250 GPM @ 8 BAR

DATA SHEET

MAIN ELECTRIC PUMP	
BRAND	WATEX- UAE
MODEL	WE 50-250
CAPACITY	250 GPM
HEAD	8 BAR
PUMP CASING	CAST IRON
IMPELLER	CAST IRON
SHAFT	STAINLESS STEEL
SHAFT SEAL	MECH. SEAL
MOTOR/MODEL	MARATHON 284TSTDBD4009
VOLTAGE	380V,50HZ, 3PH
POWER	**30 HP**
SPEED	2950 RPM
INSULATION	CLASS F
PROTECTION	IP 55
STANDBY DIESEL PUMP	
BRAND	WATEX - UAE
MODEL	WE 50-250
CAPACITY	250 GPM
HEAD	8 BAR
PUMP CASING	CAST IRON
IMPELLER	CAST IRON
SHAFT	STAINLESS STEEL
SHAFT SEAL	MECH. SEAL
ENGINE/MODEL	WATEX 480
VOLTAGE	12VDC
POWER	**37 HP**
SPEED	3000 RPM
JOCKEY PUMP	
MODEL	RV10-8 20**GPM/8BAR - 3KW - 50HZ**
IMPELLER / SHAFT	STAINLESS STEEL
PRESSURE SWITCH	PACIFIC
VALVES	ONTOR UL/FM
CONTROLLERS	3 INDIVIDUAL CONTROLLERS LS-KOREA

LIST OF SUB VENDORS

WATEX PUMPS

P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com

SUB -VENDOR LIST

S.NO	ITEM		SUPPLIER
1	PUMP HEAD	:	WATEX
2	ELECTRIC MOTOR	:	MARATHON
3	DIESEL ENGINE	:	WATEX
4	JOCKEY PUMP	:	RV
5	VALVES	:	ONTOR
6	CONTROL PANEL	:	LS

P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com

FIRE PUMP HEAD
DATA SHEET

WATEX PUMPS

P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com

Pump Performance Datasheet

Customer	:	Quote number	: 340745
Customer reference	:	Size	: WE 50-250
Item number	: Default	Stages	: 1
Service	:	Based on curve number	: WE 50-250
Quantity	: 1	Date last saved	: 08 SEP 2021 1:20 PM

Operating Conditions

Flow, rated	: 250.0 USgpm
Head, rated (requested)	: 8.00 bar
Head, rated (actual)	: 8.07 bar
Suction pressure, rated / max	: 0.00 / 0.00 bar.g
NPSH available	: Ample
Site Supply Frequency	: 50 Hz

Performance

Speed criteria	: Synchronous
Speed	: 2900 rpm
Impeller dia.	: 245 mm
Impeller diameter, maximum	: 264 mm
Impeller diameter, minimum	: 210 mm
Efficiency	: 64.80 %
NPSH required / margin required	: 3.32 / 0.00 m
nq (imp. eye flow) / S (imp. eye flow)	: 15 / 114 Metric units
MCSF	: -
Head max.	: 8.35 bar
Head rise to shutoff	: 4.35 %
Flow, best eff. point	: 332.7 USgpm
Flow ratio, rated / BEP	: 75.15 %
Diameter ratio (rated / max)	: 92.80 %
Head ratio (rated dia / max dia)	: 82.47 %
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00
Selection status	: Acceptable

Liquid

Liquid type	: Water
Additional liquid description	:
Solids diameter, max	: 0.0 mm
Solids concentration, by volume	: 0.00 %
Temperature	: 20.00 deg C
Fluid density	: 0.999 / 0.999 kg/dm3
Viscosity	: 1.00 cSt
Vapor pressure, rated	: 0.00 bar.a

Material

Material selected	: Standard

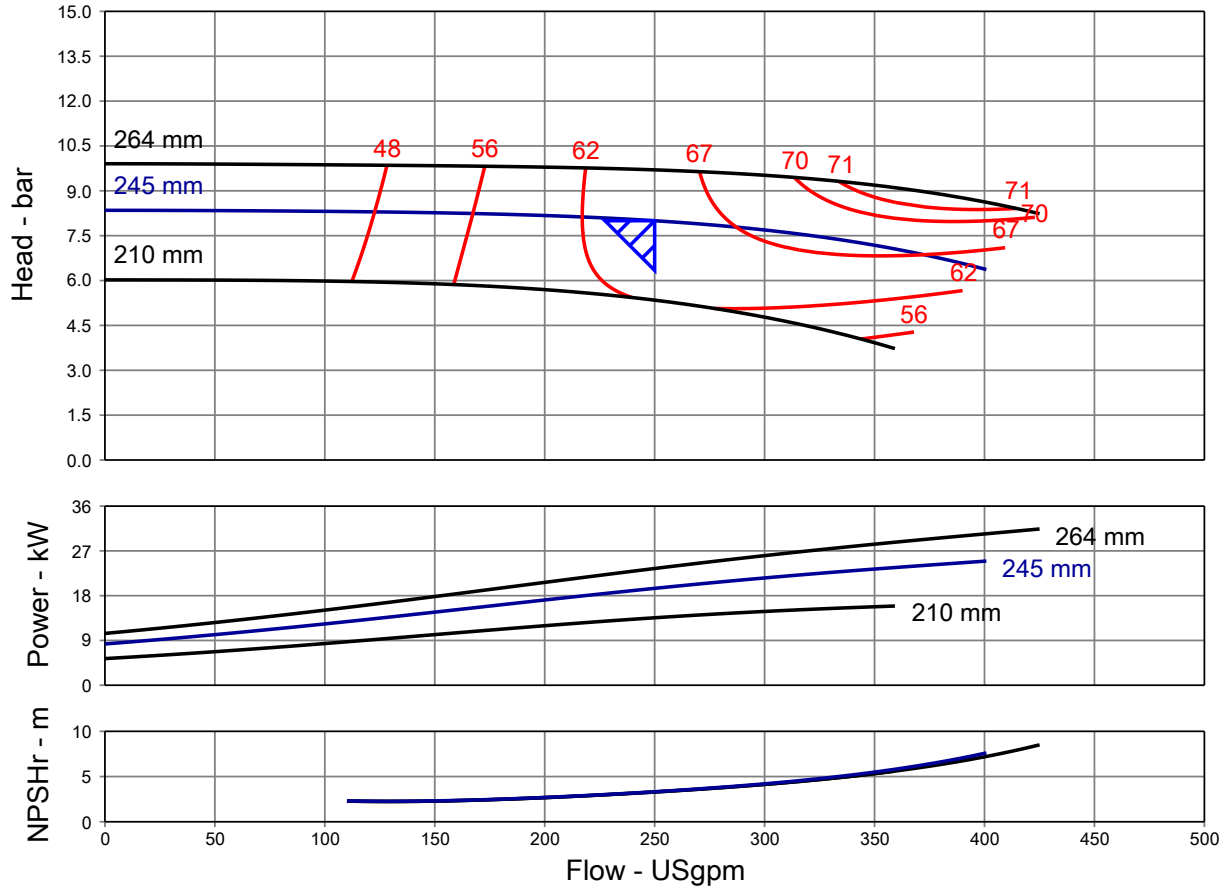
Pressure Data

Maximum working pressure	: 8.35 bar.g
Maximum allowable working pressure	: 16.00 bar.g
Maximum allowable suction pressure	: 2.50 bar.g
Hydrostatic test pressure	: 24.00 bar.g

Driver & Power Data (@Max density)

Driver sizing specification	: Maximum power
Margin over specification	: 0.00 %
Service factor	: 1.00
Power, hydraulic	: 12.62 kW
Power, rated	: 19.47 kW
Power, maximum	: 24.96 kW
Motor rating	: 26.10 kW / 35.00 hp

Performance based on test acceptance - ISO 9906:2012 3B. Performances are subject to periodic changes due to continuous improvements.



FIRE PUMP SET

APPLICATION

SINGLE STAGE CENTRIFUGAL PUMP

Fire Protection	Drainage
Heat and Ventilating	Water Treatment and Supply
Refrigeration	Irrigation
Air Conditioning	Transfer
Plumbing	Factory Pumping
Food and Drink Manufacture	Process Industry
Circulating	Petroleum Products
Water Pressure Boosting	General Industry

MATERIAL OF CONSTRUCTION

Casing	Cast Iron
Impeller	Cast Iron
Shaft	SS420
Shaft Nut	SS304
Shaft Sleeve	SS420
Mechanical Seal	SS304
Plug	SS304

P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com

Contents

Identification

Single-stage bare shaft end-suction pumps

Type key

The example shows an LBS 32-125 pump with a 120 mm impeller diameter, PN-16 flanges, with cast iron casing & impeller and with a carbon/ceramic/NBR/S.S 304 mechanical shaft seal.

WE

Example WE **32** **-125** **/120** **M** **2A** **A** **1**

~~Type range~~
Nominal diameter of discharge port (DN)
~~Nominal impeller diameter (mm)~~
Actual impeller diameter (mm)

G = With gland packing*
M = With mechanical seal
Code for pipework connection

1 = ANSI-125 flange
2A = PN-16 flange*
2B = PN-25 flange
3 = ANSI-250 flange
Code for materials

A = Cast iron pump housing with cast iron impeller*
B = Cast iron pump housing with bronze impeller
C = Cast iron pump housing with CF-8 impeller
D = Cast iron pump housing with CF-8M impeller
E = Bronze pump housing with bronze impeller
F = CF-8 pump housing with CF-8 impeller
G = CF-8M pump housing with CF-8M impeller
Code for shaft seal material

1 = Carbon/Ceramic/NBR/S.S 304*
2 = Sic/Sic/Viton/S.S 316
3 = Carbon/Sic/Viton/S.S 316

* Standard construction.

Product data

Single-stage bare shaft end-suction pumps WE

Introduction

WE are single stage bare shaft end suction pumps according to ISO 2858. Our range also includes several model of pumps which have been developed with duty condition which are not covered in ISO 2858.

Applications

- Water Supply.
- Pressure boosting for high rise buildings, hotels industry etc.
- Industrial washing & cleaning systems.
- Fire Protection systems.
- Cooling & Air Conditioning systems.
- Boiler feed and condensate transfer system.
- Irrigation systems for fields including sprinkler & drip irrigation systems.

Features & benefits

Following are the main features and benefits offered by the WE pumps.

- The pumps are non self priming horizontal end-suction pumps with axial suction port and radial discharge port.
- Standard flanges for suction and discharge ports will be PN 16 as per DIN standard EN 1092-2 and PN 25 as per DIN standard EN 1092-2. ANSI 125 and ANSI 250 as per ASME B16.1 are available on request.
- Performance and dimensions comply to ISO 2858.
- These pumps are long coupled pumps with TEFC squirrel cage induction motor with main dimensions complying to IEC standards and mounting designation B3 (IM 1001).
- These pumps are available with gland packing as well as mechanical shaft seal.
- These pumps have the discharge range from 3 to 1800 m^3/hr and head range from 4 to 158 metres. Motor ratings are from 0.37 to 350 kW.
- The pump impellers are dynamically balanced to grade 6.3 of ISO 1940.
- These pumps and motors are available with fabricated steel base frame.
- These pumps are available with our standard range of motors complying to EFF2 motors. They can also be supplied with EFF1 motors on request.
- These pumps feature the back pull-out design. As shown in fig. 1 the user can remove the motor, bearing bracket and impeller for servicing without disturbing the volute casing and the suction & delivery pipes.

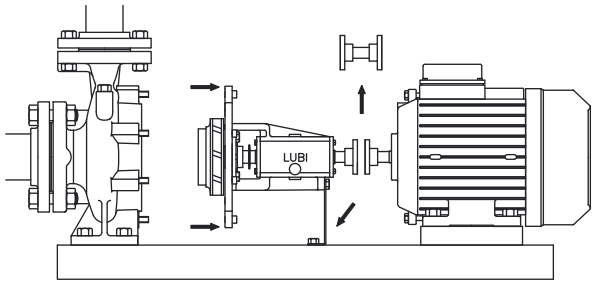
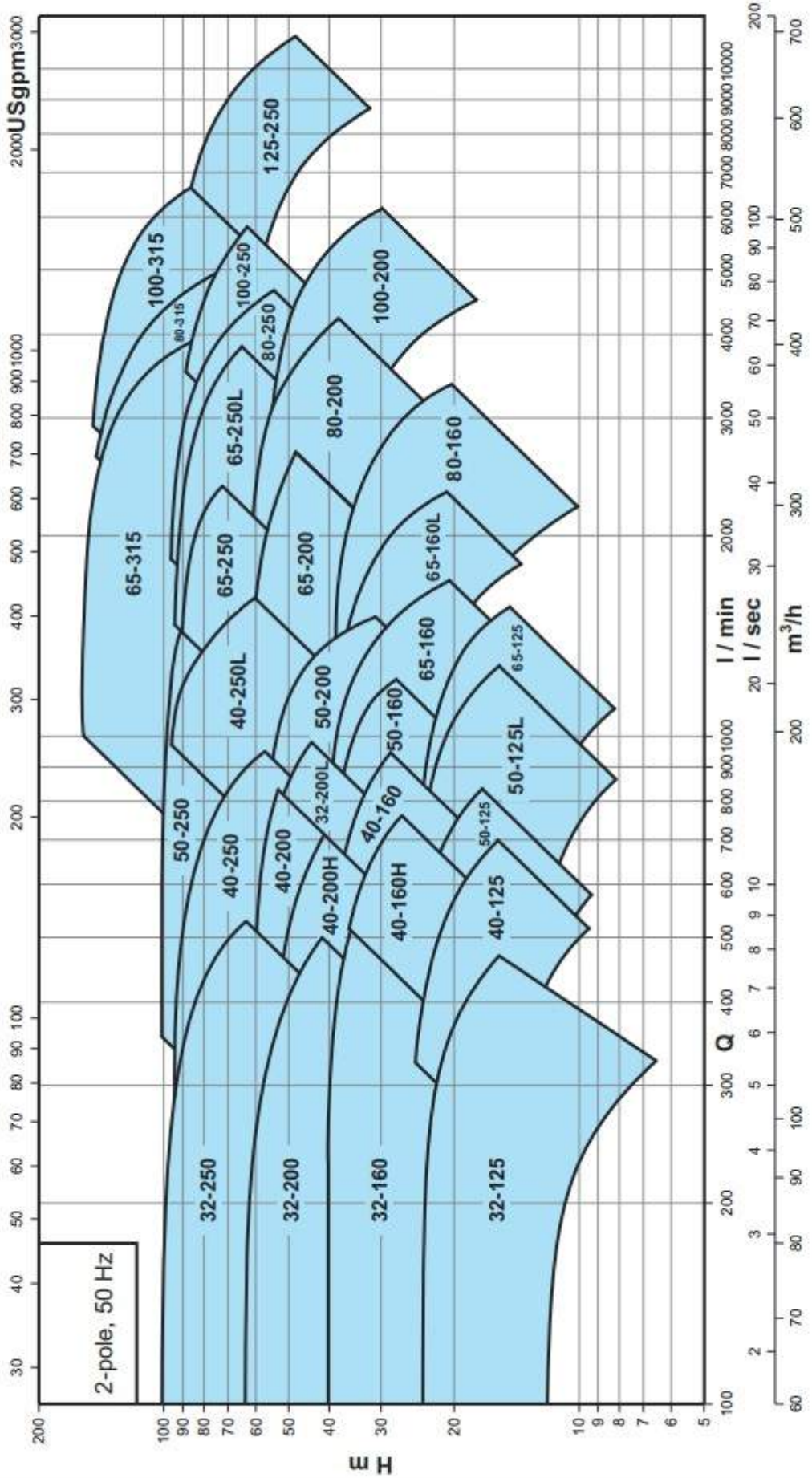


Fig. 1 Back pull-out design

Performance range

Single-stage bare shaft end-suction pumps

WE 2-Pole



Construction

Single-stage bare shaft end-suction pumps WE

Sectional drawing

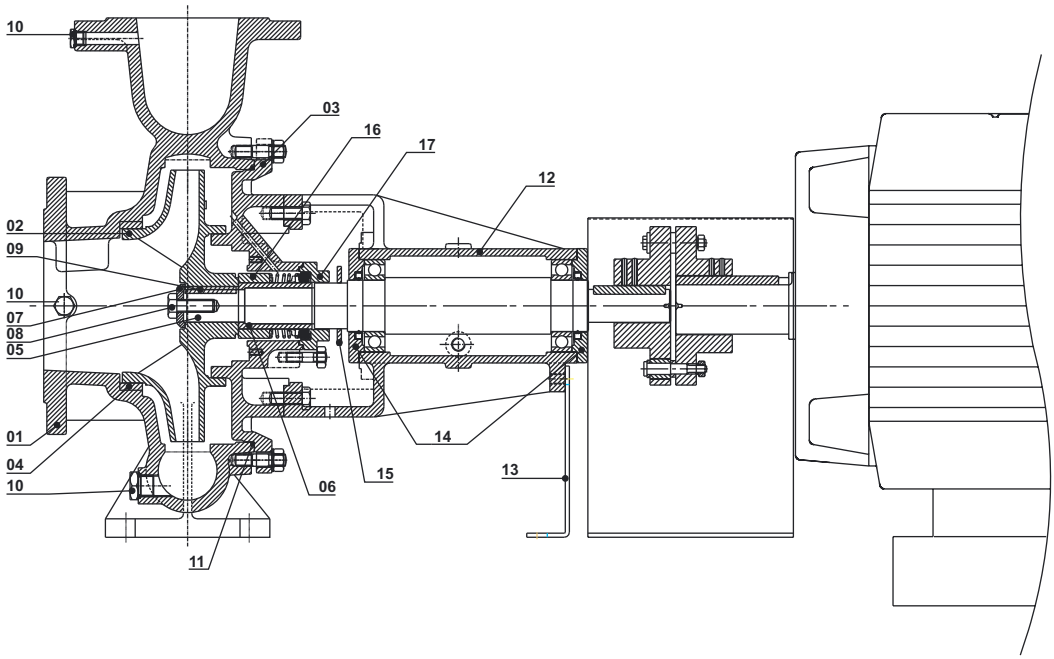


Fig. 2

Materials

Pos.	Component	A-version	B-version	C-version	D-version	E-version	F-version	G-version
1	Volute casing	Cast iron	Cast iron	Cast iron	Cast iron	Bronze	CF-8	CF-8M
2	Impeller	Cast iron	Bronze	CF-8	CF-8M	Bronze	CF-8	CF-8M
3	Back cover	Cast iron	Cast iron	Cast iron	Cast iron	Bronze	CF-8	CF-8M
5	Shaft	Carbon Steel	AISI 410	AISI 304	AISI 316	AISI 304	AISI 304	AISI 316
6	Shaft sleeve	AISI 410	AISI 410	AISI 304	AISI 316	Bronze	AISI 304	AISI 316
7	Impeller washer	AISI 410	AISI 410	AISI 304	AISI 316	Bronze	AISI 304	AISI 316
8	Impeller lock pin	AISI 410	AISI 410	AISI. 304	AISI 316	AISI 410	AISI 304	AISI 316
9	Impeller key	AISI 410	AISI 410	AISI 304	AISI 316	AISI 410	AISI 304	AISI 316
10	Plugs	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel	Bronze	AISI 304	AISI 316
11	O-ring	NBR	NBR	NBR	NBR	Viton	Viton	Viton
12	Bearing bracket	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron
13	Foot	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
14	Bearing cover	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron	Cast iron
15	Water thrower	NBR	NBR	NBR	NBR	NBR	NBR	NBR
16	Spacer	AISI 410	AISI 410	AISI 304	AISI 316	AISI 304	AISI 304	AISI 316
17	Gland follower	Cast iron	Cast iron	Cast iron	Cast iron	Bronze	CF-8	CF-8M
4	Wear ring*	Cast iron	Bronze	AISI 304	AISI 316	Bronze	CF-8	CF-8M

* Wear ring is available on request only.

Construction

Single-stage bare shaft end-suction pumps WE

Construction features

Volute casing

The volute casing of the pumps are designed to be robust in construction to take the undue stresses offered by the pipe work. They have an axial suction port and radial discharge port. Standard flanges are PN 16 as per DIN standard EN 1092-2 and PN 25 as per DIN standard EN 1092-2. ANSI 125 and ANSI 250 as per ASME B16.1 are available on request.

The volute casing are provided with a priming & drain hole closed by plugs.

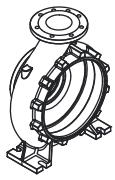


Fig. 3 Volute casing

Motor Adaptor & Back cover

Motor adaptors are robust in construction and are provided with an air vent screw in the shaft seal chamber.

Shaft & bearing bracket

The bearing bracket is provided with 2 properly sized antifriction ball bearings which are permanently lubricated for life. The bearing bracket is made of cast iron of high tensile strength. The shaft are available in carbon steel as well as stainless steel. A shaft sleeve of stainless steel is provided in the stuffing box to protect the shaft from wear and corrosion.

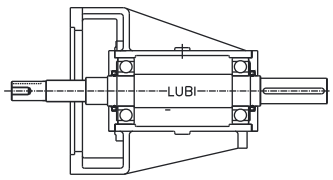


Fig. 4 Shaft & bearing bracket

All pumps are provided with one of four shaft, shaft seal and bearing brackets. As shaft and bearings are strong and properly sized the pump can be driven by a belt drive or diesel engine without any problem.

A water thrower is provided on the shaft to prevent liquid from entering the bearing bracket and damaging the bearing.

Coupling

All pumps can be provided with two types of couplings.

- Standard coupling
- Spacer coupling

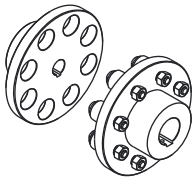


Fig. 5 Standard coupling

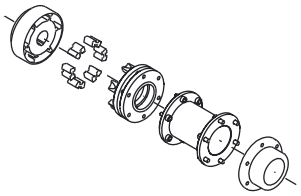


Fig. 6 Spacer coupling

The use of spacer coupling is helpful since pumps fitted with them can be serviced without dismantling the motor from the base frame and also without removing the pipe work or volute casing. Realignment of pump and motor is also not necessary after servicing.

Impeller

The impellers are closed impellers with extra smooth surface finish and machined completely from outside to ensure high efficiency.

The direction of rotation of impeller is clock wise when viewed from the motor non-driving end.

They are dynamically balanced to grade 6.3 of ISO 1940.

All impellers can be trimmed to adopt them for the duty point requested by the customer.

Suggested trimmed impeller diameter as shown on the performance curves are theoretical. Performance may vary from what is shown on the performance curve.

Fig. 7 Impeller

Base frame

Pump and motor are mounted on a common steel base frame.

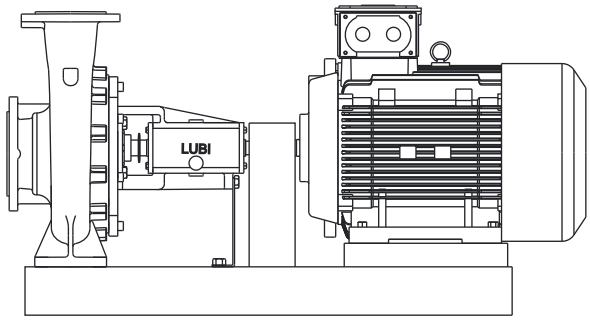


Fig. 8 we pump motor unit mounted on a base frame

Test pressure

All pumps are hydrostatic tested for leakage as per the following test pressure using water containing corrosion inhibitor at room temperature.

Pressure rating	Operating pressure	Test pressure
PN 16	16 bar	24 bar
PN 25	25 bar	37.5 bar
ANSI 125	125 psi	188 psi
ANSI 250	250 psi	375 psi

Motors

The motors are squirrel cage induction motors, totally enclosed fan cooled with main dimension to IEC standards. The standard motors with the pumps are all as per EFF2 efficiency.
EFF1 efficiency motors can be available on request.

Operating conditions

Single-stage bare shaft end-suction pumps

WE

Sound/Noise Levels

As shown in the table below the motor noise levels will not exceed the maximum sound pressure level [db(A)] as per ISO 3743.

Motor kW	Maximum sound pressure level [db(A)]-ISO 3743		
	Three-phase motors		
	2-pole	4-pole	6-pole
0.37	56	45	-
0.55	57	42	40
0.75	56	42	43
1.10	59	50	43
1.50	58	50	47
2.20	60	52	52
3.00	59	52	63
4.00	63	54	63
5.50	63	62	63
7.50	68	62	66
11.0	70	66	66
15.0	70	66	66
18.5	70	63	66
22.0	70	63	66
30.0	71	65	59
37.0	71	66	60
45.0	71	66	58
55.0	71	67	58
75.0	73	70	61
90.0	73	70	61
110.0	76	70	61
132.0	76	70	61

Ambient temperature and altitude

The ambient temperature for proper motor operation must not exceed.

- + 45°C for EFF2 motors
- + 60°C for EFF1 motors.

In case of ambient temperature exceeding 45°C (or 60°C for EFF1) or if motor is to be installed more than 1000 metres above sea level then a higher output motor should be selected due to low cooling effect. Please refer the chart as shown in fig. 9 for selection of the motors at higher temperature or altitude.

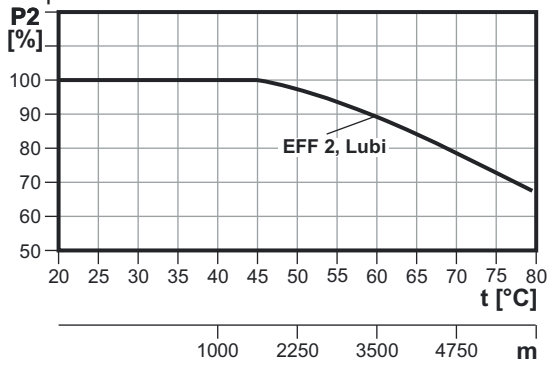


Fig. 9 Motor P2 depend on temperature/altitude

Example

A 15 kw EFF2 motor has to be increased in output to 18.5 kw if ambient temperature is 60°C.

A 15 kw EFF2 motor has to be increased in output to 18.5 kw if it has to operate at 3500 meters above mean sea level.

Pump location

The Pumps have been designed to operate in non aggressive and non explosive atmosphere.

The relative humidity should not exceed 95%.

Pumped liquids

WE pumps are designed for non explosive liquids which are clean, and thin without any solid particles.

For aggressive liquid please ensure that material of construction is suitable for liquid to be pumped.

A viscous liquid affects the pump performance in the following ways.

- The power consumption of the pump will increase with increase in viscosity. This will require a larger motor for the pump.
- Head, discharge & pump efficiency will reduce.

A liquid with high density will also affect the performance as follows.

- The power consumption will increase at a ratio corresponding to increase in density. For example a liquid with a specific gravity of 1.30 will require 30% larger motor to drive the pump.
- The head, discharge and pump efficiency will not change with change in density.

Liquid temperature

The WE pump range covers the temperature range from 0°C to +140°C.

The permissible liquid temperature depends on the type of mechanical shaft seal furnished on the pump.

Please refer the table showing relationship between mechanical shaft seal & temperature.

The maximum liquid temperature is stamped on the nameplate of the pump.

Relationship between shaft seals and temperature

Seal type	Code	Temperature range
Carbon/Ceramic/NBR/ S.S.304	1	0°C to +90°C
Sic/Sic/Viton/S.S.316	2	0°C to +90°C
Carbon/Sic/Viton/S.S.316	3	0°C to +140°C

Inlet pressure

- The inlet pressure + shut off pressure (pressure of pump against closed valve) should not exceed the maximum operating pressure of the pump.
- The minimum inlet pressure must be according to the NPSH curve + 0.5 meters safety margin + correction of vapour pressure.

Motor electrical data

Single-stage bare shaft end-suction pumps

WE

Eff 2/standard efficiency, 2-pole

P2 [kW]	P2 [H.P]	Frame size	Voltage	$I_{1/1}$[A]	η [%]	Cos Ø $_{1/1}$	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
0.75	1.00	80L	3x220-240Δ/380-415Y	3.3/1.9	77.0	0.820	2820	6.0
1.10	1.50	80L	3x220-240Δ/380-415Y	4.5/2.6	82.5	0.810	2820	6.0
1.50	2.00	90S	3x220-240Δ/380-415Y	5.9/3.4	84.0	0.827	2830	6.0
2.20	3.00	90L	3x220-240Δ/380-415Y	8.3/5.0	85.5	0.820	2830	6.5
3.00	4.00	100L	3x220-240Δ/380-415Y	11.0/6.5	86.0	0.830	2840	6.5
4.00	5.50	100L	3x220-240Δ/380-415Y	14.5/8.5	87.5	0.826	2845	6.5
5.50	7.50	132S	3x380-415Δ	11.0	88.5	0.890	2865	6.0
7.50	10.0	132M	3x380-415Δ	15.5	89.5	0.851	2880	6.5
9.30	12.5	160M	3x380-415Δ	19.0	90.0	0.890	2920	6.5
11.0	15.0	160M	3x380-415Δ	22.0	90.5	0.890	2920	6.5
15.0	20.0	160M	3x380-415Δ	28.0	91.0	0.880	2920	6.5
18.5	25.0	160L	3x380-415Δ	34.0	92.0	0.880	2920	6.5
22.0	30.0	180M	3x380-415Δ	42.0	92.0	0.830	2930	6.5
30.0	40.0	200L	3x380-415Δ	57.0	93.0	0.900	2950	6.5
37.0	50.0	200L	3x380-415Δ	65.0	93.0	0.904	2950	6.5
45.0	60.0	225M	3x380-415Δ	78.0	93.5	0.941	2955	6.5
55.0	75.0	250M	3x380-415Δ	94.0	94.0	0.940	2960	6.5
75.0	100.0	280S	3x380-415Δ	130.0	94.5	0.900	2965	6.5
90.0	120.0	280M	3x380-415Δ	154.0	95.0	0.903	2965	6.5
110.0	150.0	315S	3x380-415Δ	188.0	95.0	0.942	2965	6.5
132.0	180.0	315M	3x380-415Δ	222.0	95.0	0.940	2965	6.5

Eff 2/standard efficiency, 4-pole

P2 [kW]	P2 [H.P]	Frame size	Voltage	$I_{1/1}$[A]	η [%]	Cos Ø $_{1/1}$	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
0.37	0.50	71L	3x220-240Δ/380-415Y	2.0/1.25	73.0	0.705	1400	6.0
0.55	0.75	80L	3x220-240Δ/380-415Y	2.6/1.5	78.0	0.785	1410	5.5
0.75	1.00	80L	3x220-240Δ/380-415Y	3.4/2.0	82.5	0.780	1410	5.5
1.10	1.50	90S	3x220-240Δ/380-415Y	5.1/3.0	83.5	0.780	1415	5.5
1.50	2.00	90L	3x220-240Δ/380-415Y	6.6/3.9	85.0	0.818	1415	6.0
2.20	3.00	100L	3x220-240Δ/380-415Y	9.4/5.5	86.0	0.824	1440	6.0
3.00	4.00	112M	3x220-240Δ/380-415Y	12.1/7.0	86.0	0.825	1445	6.0
4.00	5.50	112M	3x380-415Δ	9.0	86.5	0.830	1445	6.0
5.50	7.50	132M	3x380-415Δ	12.8	89.0	0.810	1450	6.0
7.50	10.0	132M	3x380-415Δ	14.5	90.0	0.840	1455	6.5
9.30	12.5	160M	3x380-415Δ	18.0	90.5	0.840	1460	6.5
11.0	15.0	160M	3x380-415Δ	22.0	91.0	0.820	1460	6.5
15.0	20.0	160L	3x380-415Δ	29.0	91.5	0.850	1460	6.5
18.5	25.0	180M	3x380-415Δ	34.0	92.0	0.846	1475	6.5
22.0	30.0	180L	3x380-415Δ	40.0	92.5	0.848	1475	6.5
30.0	40.0	200L	3x380-415Δ	55.0	93.0	0.896	1475	6.5
37.0	50.0	225S	3x380-415Δ	72.0	93.5	0.890	1475	6.5
45.0	60.0	225M	3x380-415Δ	79.0	94.0	0.890	1480	7.0
55.0	75.0	250M	3x380-415Δ	96.0	94.0	0.893	1475	7.0
75.0	100.0	280S	3x380-415Δ	129.0	94.5	0.903	1480	7.0
90.0	120.0	280M	3x380-415Δ	151.0	95.0	0.903	1480	7.0
120.0	150.0	315S	3x380-415Δ	193.0	95.0	0.903	1480	7.0

Eff 2/standard efficiency, 6-pole

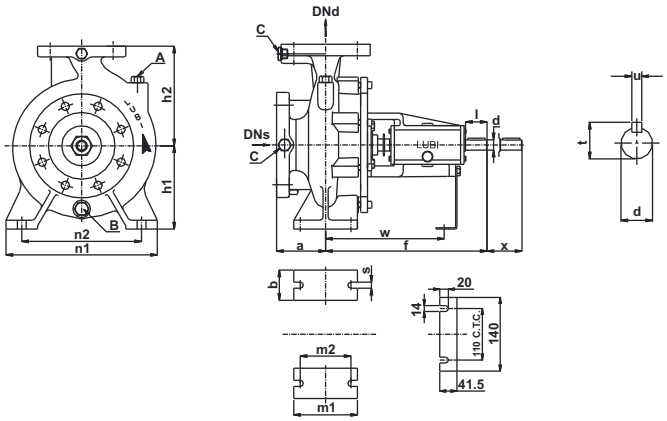
P2 [kW]	P2 [H.P]	Frame size	Voltage	$I_{1/1}$[A]	η [%]	Cos Ø $_{1/1}$	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
0.75	1.00	90S	3x220-240Δ/380-415Y	3.6/2.3	74.6	0.720	900	6.0
1.10	1.50	90L	3x220-240Δ/380-415Y	5.0/3.0	77.3	0.780	910	6.0
1.50	2.00	100L	3x220-240Δ/380-415Y	6.5/3.8	79.6	0.790	910	6.0
2.20	3.00	112M	3x220-240Δ/380-415Y	9.4/5.5	82.2	0.800	915	7.0
3.00	4.00	132S	3x380-415Δ	8.5	84	0.815	915	7.0
4.00	5.50	132S	3x380-415Δ	9.0	85.1	0.820	920	7.0
5.50	7.50	132M	3x380-415Δ	12.0	86.8	0.820	925	7.0
7.50	10.0	160M	3x380-415Δ	16.0	88.1	0.825	935	7.0
9.30	12.5	160M	3x380-415Δ	18.0	89.3	0.830	940	7.0
11.0	15.0	160L	3x380-415Δ	24.0	89.7	0.840	940	7.0
15.0	20.0	180L	3x380-415Δ	32.0	90.5	0.840	945	7.0
18.5	25.0	200L	3x380-415Δ	36.0	91.3	0.846	945	7.0
22.0	30.0	200L	3x380-415Δ	42.0	91.8	0.860	950	7.0
30.0	40.0	225M	3x380-415Δ	56.0	92.6	0.880	950	7.0

Dimensions

Single-stage bare shaft end-suction pumps

WE

Bare shaft pumps



TYPE	DNs	DNd	a	b	d.k6	f	h1	h2	l	m1	m2	n1	n2	s	t	u	w	x	A	B	C	Net weight kg.	Gross weight kg.	Volume m^3
WE 32-125	50	32	80	50	24	360	112	140	50	100	70	190	140	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	28	38	0.084
WE 32-160	50	32	80	50	24	360	132	160	50	100	70	240	190	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	37	47	0.084
WE 32-200	50	32	80	50	24	360	160	180	50	100	70	240	190	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	42	52	0.084
WE 32-200L	50	32	80	50	24	360	160	180	50	100	70	240	190	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	40	50	0.084
WE 32-250	50	32	100	65	24	360	180	225	50	125	95	320	250	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	47	57	0.142
WE 40-125	65	40	80	50	24	360	112	140	50	100	70	210	160	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	30	40	0.084
WE 40-125L	65	40	80	50	24	360	112	140	50	100	70	210	160	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	30	40	0.084
WE 40-160	65	40	80	50	24	360	132	160	50	100	70	240	190	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	33	43	0.084
WE 40-160H	65	40	80	50	24	360	132	160	50	100	70	240	190	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	33	43	0.084
WE 40-200	65	40	100	50	24	360	160	180	50	100	70	265	212	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	38	48	0.084
WE 40-200H	65	40	100	50	24	360	160	180	50	100	70	265	212	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	38	48	0.084
WE 40-250	65	40	100	65	24	360	180	225	50	125	95	320	250	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	51	61	0.142
WE 40-250L	65	40	100	65	24	360	180	225	50	125	95	320	250	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	51	61	0.142
WE 50-125	65	50	100	50	24	360	132	160	50	100	70	240	190	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	32	42	0.084
WE 50-125L	65	50	100	50	24	360	132	160	50	100	70	240	190	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	32	42	0.084
WE 50-160	65	50	100	50	24	360	160	180	50	100	70	265	212	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	37	47	0.084
WE 50-200	65	50	100	50	24	360	160	200	50	100	70	265	212	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	41	51	0.142
WE 50-250	65	50	100	65	24	360	180	225	50	125	95	320	250	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	53	63	0.142
WE 65-125	80	65	100	65	24	360	160	180	50	125	95	280	212	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	39	49	0.084
WE 65-160	80	65	100	65	24	360	160	200	50	125	95	280	212	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"	45	55	0.142
WE 65-200	80	65	100	65	24	360	180	225	50	125	95	320	250	14	27	8	260	140	Ø3/8"	Ø1/2"	Ø1/4"	46	56	0.142
WE 65-250	80	65	100	80	32	470	200	250	80	160	120	360	280	18	35	10	340	140	Ø3/8"	Ø1/2"	Ø1/4"	76	86	0.225
WE 65-315	80	65	125	80	32	470	225	280	80	160	120	400	315	18	35	10	340	140	Ø3/8"	Ø1/2"	Ø1/4"	94	104	0.225
WE 80-160	100	80	125	65	24	360	180	225	50	125	95	320	250	14	27	8	260	140	Ø3/8"	Ø1/2"	Ø1/4"	52	62	0.142
WE 80-200	100	80	125	65	32	470	180	250	80	125	95	345	280	14	35	10	340	140	Ø3/8"	Ø1/2"	Ø1/4"	68	78	0.225
WE 80-250	100	80	125	80	32	470	200	280	80	160	120	400	315	18	35	10	340	140	Ø3/8"	Ø1/2"	Ø1/4"	82	92	0.225
WE 65-250L	100	65	100	80	32	470	200	250	80	160	120	360	280	18	35	10	340	140	Ø3/8"	Ø1/2"	Ø1/4"	76	86	0.225
WE 80-315	100	80	125	80	32	470	250	315	80	160	120	400	315	18	35	10	340	140	Ø3/8"	Ø1/2"	Ø1/4"	95	161	0.438
WE 80-400	100	80	140	80	42	530	280	355	110	160	120	435	355	18	45	12	370	140	Ø3/8"	Ø1/2"	Ø1/4"	145	211	0.438
WE 100-200	125	100	125	80	32	470	200	280	80	160	120	360	280	18	35	10	340	140	Ø3/8"	Ø1/2"	Ø1/4"	79	89	0.225
WE 100-250	125	100	140	80	32	470	225	280	80	160	120	400	315	18	35	10	340	140	Ø3/8"	Ø1/2"	Ø1/4"	90	100	0.225
WE 100-315	125	100	140	80	32	470	250	315	80	160	120	400	315	18	35	10	340	140	Ø3/8"	Ø1/2"	Ø1/4"	104	170	0.438
WE 100-400	125	100	140	100	42	530	280	355	110	200	150	500	400	22	45	12	370	140	Ø3/8"	Ø1/2"	Ø1/4"	145	211	0.438
WE 125-250	150	125	140	80	32	470	250	355	80	160	120	400	315	18	35	10	340	140	Ø3/8"	Ø1/2"	Ø1/4"	117	183	0.438
WE 125-315	150	125	140	100	42	530	280	355	110	200	150	500	400	22	45	12	370	140	Ø3/8"	Ø1/2"	Ø1/4"	142	208	0.438
WE 125-400	150	125	140	100	42	530	315	400	110	200	150	500	400	22	45	12	370	140	Ø3/8"	Ø1/2"	Ø1/4"	178	258	0.576
WE 125-500	150	125	180	125	60	670	400	500	110	200	150	625	500	22	63	18	500	140	Ø3/8"	Ø1/2"	Ø1/4"	267	367	0.976
WE 150-250	200	150	160	100	42	530	280	375	110	200	150	500	400	22	45	12	370	140	Ø3/8"	Ø1/2"	Ø1/4"	142	208	0.438
WE 150-315	200	150	160	100	42	530	280	400	110	200	150	550	450	22	45	12	370	140	Ø3/8"	Ø1/2"	Ø1/4"	167	247	0.576
WE 150-400	200	150	160	100	42	530	315	450	110	200	150	550	450	22	45	12	370	140	Ø3/8"	Ø1/2"	Ø1/4"	200	280	0.576
WE 150-500	200	150	180	125	60	670	400	500	110	200	150	625	500	22	65	18	500	140	Ø3/8"	Ø1/2"	Ø1/4"	305	410	1.000
WE 200-315	250	200	180	125	48	538	315	475	110	250	175	600	500	22	52	14	378	140	Ø3/8"	Ø1/2"	Ø1/4"	230	310	0.576
WE 200-400	250	200	180	140	60	670	400	525	110	250	175	700	560	26	63	18	500	140	Ø3/8"	Ø1/2"	Ø1/4"	257	357	0.936
WE 250-315	300	250	205	125	60	698	385	525	110	250	175	600	500	23	66	18	535	140	Ø3/8"	Ø1/2"	Ø1/4"	282	382	0.732
WE 250-400	300	250	240	150	75	794	400	590	140	280	200	650	500	26	80	20	544	140	Ø3/8"	Ø1/2"	Ø1/4"	348	448	0.933
WE 250-500	300	250	240	160	75	803	425	675	140	300	240	720	600	26	80	20	552	140	Ø3/8"	Ø1/2"	Ø1/4"	428	528	1.122

All dimensions in mm unless otherwise noted.

Accessories

Single-stage bare shaft end-suction pumps

WE

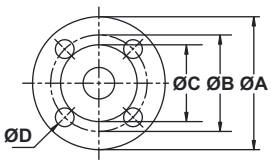
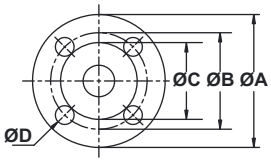
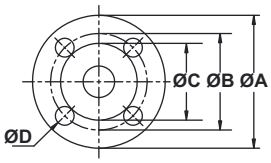
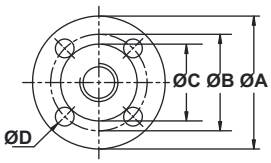
Counter flanges

Cast iron pumps (version-A,B,C,D)
For threaded connection, flanges are made of cast iron.
For welding connection, flanges are made of carbon steel.

CF-8 & Bronze pumps (version-E,F)
For threaded connection, flanges are made of CF-8.
For welding connection, flanges are made of S.S.304.

CF-8M pumps (version-G)
For threaded connection, flanges are made of CF-8M.
For welding connection, flanges are made of S.S.316.

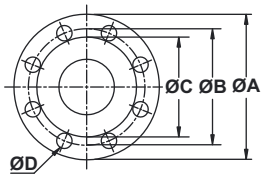
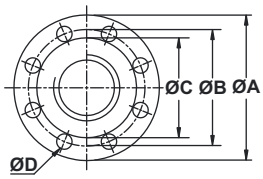
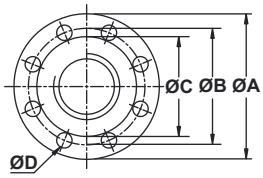
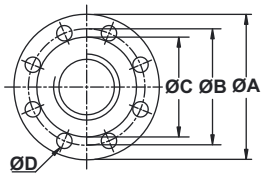
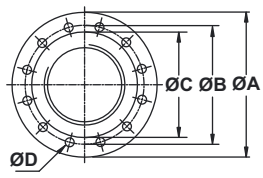
A set consist of one counter flange, one gasket of rubber material and the requisite number of bolts and nuts.

Counter flange	Flange size	Description		A	B	C	ØDxQty. of Holes	Pipework connection	Product number
	DN 32	Threaded	PN 16	Ø140	Ø100	Ø78	Ø18X4	Rp 1¼ BSP**	0321T*
			PN 25	Ø140	Ø100	Ø78	Ø18X4		0322T*
			ANSI 125	Ø115	Ø89	-	Ø5/8”X4	Rp 1¼ NPT	0323T*
			ANSI 250	Ø135	Ø98	Ø78	Ø3/4”X4		0324T*
		For welding	PN 16	Ø140	Ø100	Ø78	Ø18X4	32 mm	0321W*
			PN 25	Ø140	Ø100	Ø78	Ø18X4		0322W*
			ANSI 125	Ø115	Ø89	-	Ø5/8”X4		0323W*
			ANSI 250	Ø135	Ø98	Ø78	Ø3/4”X4		0324W*
	DN 40	Threaded	PN 16	Ø150	Ø110	Ø88	Ø18X4	Rp 1½ BSP**	0401T*
			PN 25	Ø150	Ø110	Ø88	Ø18X4		0402T*
			ANSI 125	Ø125	Ø98	-	Ø5/8”X4	Rp 1½ NPT	0403T*
			ANSI 250	Ø155	Ø114	Ø91	Ø7/8”X4		0404T*
		For welding	PN 16	Ø150	Ø110	Ø88	Ø18X4	40 mm	0401W*
			PN 25	Ø150	Ø110	Ø88	Ø18X4		0402W*
			ANSI 125	Ø125	Ø98	-	Ø5/8”X4		0403W*
			ANSI 250	Ø155	Ø114	Ø91	Ø7/8”X4		0404W*
	DN 50	Threaded	PN 16	Ø165	Ø125	Ø102	Ø18X4	Rp 2 BSP**	0501T*
			PN 25	Ø165	Ø125	Ø102	Ø18X4		0502T*
			ANSI 125	Ø150	Ø121	-	Ø3/4”X4	Rp 2 NPT	0503T*
			ANSI 250	Ø165	Ø127	Ø106	Ø3/4”X8		0504T*
		For welding	PN 16	Ø165	Ø125	Ø102	Ø18X4	50 mm	0501W*
			PN 25	Ø165	Ø125	Ø102	Ø18X4		0502W*
			ANSI 125	Ø150	Ø121	-	Ø3/4”X4		0503W*
			ANSI 250	Ø165	Ø127	Ø106	Ø3/4”X8		0504W*
	DN 65	Threaded	PN 16	Ø185	Ø145	Ø122	Ø18X4	Rp 2½ BSP**	0651T*
			PN 25	Ø185	Ø145	Ø122	Ø18X8		0652T*
			ANSI 125	Ø180	Ø140	-	Ø3/4”X4	Rp 2½ NPT	0653T*
			ANSI 250	Ø190	Ø149	Ø125	Ø7/8”X8		0654T*
		For welding	PN 16	Ø185	Ø145	Ø122	Ø18X4	65 mm	0651W*
			PN 25	Ø185	Ø145	Ø122	Ø18X8		0652W*
			ANSI 125	Ø180	Ø140	-	Ø3/4”X4		0653W*
			ANSI 250	Ø190	Ø149	Ø125	Ø7/8”X8		0654W*

Accessories

Single-stage bare shaft end-suction pumps

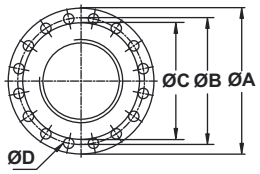
WE

Counter flange	Flange size	Description		A	B	C	ØDxQty. of Holes	Pipework connection	Product number
	DN 80	Threaded	PN 16	Ø200	Ø160	Ø138	Ø18X8	Rp 3 BSP**	0801T*
			PN 25	Ø200	Ø160	Ø138	Ø18X8		0802T*
			ANSI 125	Ø190	Ø152	-	Ø3/4”X4	Rp 3 NPT	0803T*
			ANSI 250	Ø210	Ø168	Ø144	Ø7/8”X8		0804T*
		For welding	PN 16	Ø200	Ø160	Ø138	Ø18X8	80 mm	0801W*
			PN 25	Ø200	Ø160	Ø138	Ø18X8		0802W*
			ANSI 125	Ø190	Ø152	-	Ø3/4”X4		0803W*
			ANSI 250	Ø210	Ø168	Ø144	Ø7/8”X8		0804W*
	DN 100	Threaded	PN 16	Ø235	Ø180	Ø158	Ø18X8	Rp 4 BSP**	1001T*
			PN 25	Ø235	Ø190	Ø158	Ø22X8		1002T*
			ANSI 125	Ø230	Ø191	-	Ø3/4”X8	Rp 4 NPT	1003T*
			ANSI 250	Ø255	Ø200	Ø176	Ø7/8”X8		1004T*
		For welding	PN 16	Ø235	Ø180	Ø158	Ø18X8	100 mm	1001W*
			PN 25	Ø235	Ø190	Ø158	Ø22X8		1002W*
			ANSI 125	Ø230	Ø191	-	Ø3/4”X8		1003W*
			ANSI 250	Ø255	Ø200	Ø176	Ø7/8”X8		1004W*
	DN 125	Threaded	PN 16	Ø270	Ø210	Ø188	Ø18X8	Rp 5 BSP**	1251T*
			PN 25	Ø270	Ø220	Ø188	Ø25X8		1252T*
			ANSI 125	Ø255	Ø216	-	Ø7/8”X8	Rp 5 NPT	1253T*
			ANSI 250	Ø280	Ø235	Ø211	Ø7/8”X8		1254T*
		For welding	PN 16	Ø270	Ø210	Ø188	Ø18X8	125 mm	1251W*
			PN 25	Ø270	Ø220	Ø188	Ø25X8		1252W*
			ANSI 125	Ø255	Ø216	-	Ø7/8”X8		1253W*
			ANSI 250	Ø280	Ø235	Ø211	Ø7/8”X8		1254W*
	DN 150	Threaded	PN 16	Ø300	Ø240	Ø212	Ø22X8	Rp 6 BSP**	1501T*
			PN 25	Ø300	Ø250	Ø212	Ø25X8		1502T*
			ANSI 125	Ø280	Ø241	-	Ø7/8”X8	Rp 6 NPT	1503T*
			ANSI 250	Ø320	Ø270	Ø246	Ø7/8”X12		1504T*
		For welding	PN 16	Ø300	Ø240	Ø212	Ø22X8	150 mm	1501W*
			PN 25	Ø300	Ø250	Ø212	Ø25X8		1502W*
			ANSI 125	Ø280	Ø241	-	Ø7/8”X8		1503W*
			ANSI 250	Ø320	Ø270	Ø246	Ø7/8”X12		1504W*
	DN 200	Threaded	PN 16	Ø360	Ø295	Ø268	Ø22X12	Rp 8 BSP**	2001T*
			PN 25	Ø360	Ø310	Ø268	Ø25X12		2002T*
			ANSI 125	Ø345	Ø299	-	Ø7/8”X8	Rp 8 NPT	2003T*
			ANSI 250	Ø380	Ø330	Ø303	Ø1-1/8”X12		2004T*
		For welding	PN 16	Ø360	Ø295	Ø268	Ø22X12	200 mm	2001W*
			PN 25	Ø360	Ø310	Ø268	Ø25X12		2002W*
			ANSI 125	Ø345	Ø299	-	Ø7/8”X8		2003W*
			ANSI 250	Ø380	Ø330	Ø303	Ø1-1/8”X12		2004W*

Accessories

Single-stage bare shaft end-suction pumps

WE

Counter flange	Flange size	Description		A	B	C	ØDxQty. of Holes	Pipework connection	Product number
	DN 250	Threaded	PN 16	Ø425	Ø355	Ø320	Ø25X12	Rp 10 BSP**	2501T*
			PN 25	Ø425	Ø370	Ø320	Ø29X12		2502T*
			ANSI 125	Ø405	Ø362	-	Ø1”X12	Rp 10 NPT	2503T*
			ANSI 250	Ø445	Ø387	Ø357	Ø1-1/4”X16		2504T*
		For welding	PN 16	Ø425	Ø355	Ø320	Ø25X12	250 mm	2501W*
			PN 25	Ø425	Ø370	Ø320	Ø29X12		2502W*
			ANSI 125	Ø405	Ø362	-	Ø1”X12		2503W*
			ANSI 250	Ø445	Ø387	Ø357	Ø1-1/4”X16		2504W*

* Add a subscript as per following example to part number.
0321TCI for cast iron flanges.
0321TS1 for S.S 304 flanges.
0321TS2 for S.S 316 flanges.
0321WCS for carbon steel flanges.

** NPT threaded flanges are also available on request.

ELECTRIC MOTOR
DATA SHEET

P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com

marathon® Motors

FIRE PUMP MOTORS

BROCHURE

REGAL®

MARATHON®

In 1913, the founders of a new motor company that they named Marathon Electric had a simple vision:

- Serve our customers according to their needs
- Produce the most efficient and long-lasting motors
- Commit to new technology and research
- Expand and diversify into new markets

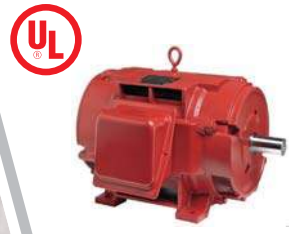
The company was located in the heartland of America, Wausau, Wisconsin, where it remains today, over one hundred years later. The company continues to be one of the innovators in the motor industry, built on a history of industry first! Marathon engineered, designed, and built the first fire pump motor and we continue to lead the life safety industry with Marine Duty UL fire pump motors, medium voltage, vertical hollow shaft UL fire pump motors, and specialty UL Fire Pump motors.

When a fireman needs a trusted friend in an emergency, he knows Marathon will do the job, offering protection, high performance, and reliability as we have for over one hundred years … that's a legacy!

PRODUCT LINE

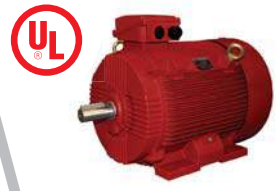
ODP

- Available in NEMA or IEC construction these motors are ideal for in-door applications. Lower cost and longer product life due to lower temperature windings make these a best value option.
- These motors are available from 25-500HP, 2 and 4 poles, Epact Efficiency. All motors are 12 leads for wye-delta or across-the-line start, part winding start is available in single voltage or at lower voltage for dual voltage motors. All motors have 1.15 service factor for all voltages.



TEFC

- Available in NEMA or IEC construction, TEFC motors are ideal for applications in tough environments.
- These motors are available from 25-500HP, 2 and 4 poles, Epact Efficiency. All motors are 12 leads for wye-delta or across the line start, part winding start is available in single voltage or at lower voltage for duo voltage motors. All motors have 1.15 service factor for all voltages.



CLOSE COUPLED PUMP

- Available as JP or JM constructions, these motors are ideal when space is an issue. This integrated design enables a lower system cost.
- 2 and 4 poles, Epact Efficiency. Horizontal or vertical ODP construction.
- All motors have 1.15 service factor for all voltages.

VSS AND VHS

- Vertical solid shaft and hollow shaft constructions are ideal for deep well applications with turbine pumps. These motors are designed to handle the highest thrust loads of this system.
- VSS motors are available from 3-400 HP, 2 to 8 poles and are designed for normal and medium thrust, Epact Efficiency.
- All motors are 12 leads for wye-delta or across the line start, part winding start is available in single voltage or at lower voltage for duo voltage motors. All motors have 1.15 service factor for all voltages.
- VHS motors are available from 7.5HP to 300HP, 2 and 4 poles, WP1, Epact Efficiency.
- All motors are 12 leads for wye-delta or across-the-line start, part winding start is available in single voltage or at lower voltage for dual voltage motors. All motors have 1.15 service factor for all voltages.

MEDIUM VOLTAGE

- Regal also offers Medium Voltage products in NEMA and IEC constructions designed specifically for Fire Pump Applications.
- NEMA Construction, from 200 to 700HP, 2300V & 4000V 50/60HZ, 2 and 4 poles, IP22, 1.15 service factor. IEC Construction, from 185kW to 2800kW, 3kV through 10kV 50HZ & 4kV through 13.8kV 60HZ, 4 poles, IP23.

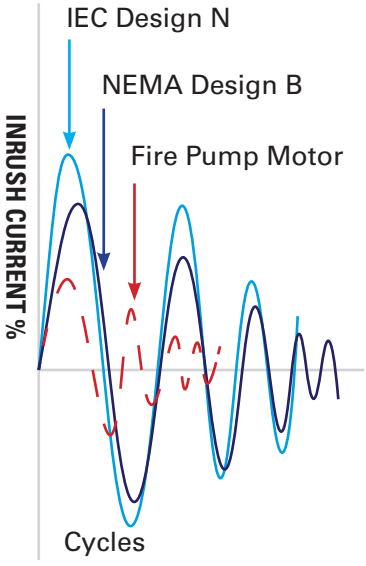
Scan the QR code for more information on Marathon® Fire Pump Motors

UL LISTED MOTORS

NAMEPLATES

- Fire pump motors have two nameplates, the normal nameplate with UL label and special fire pump nameplate with the UL listing for fire pumps.

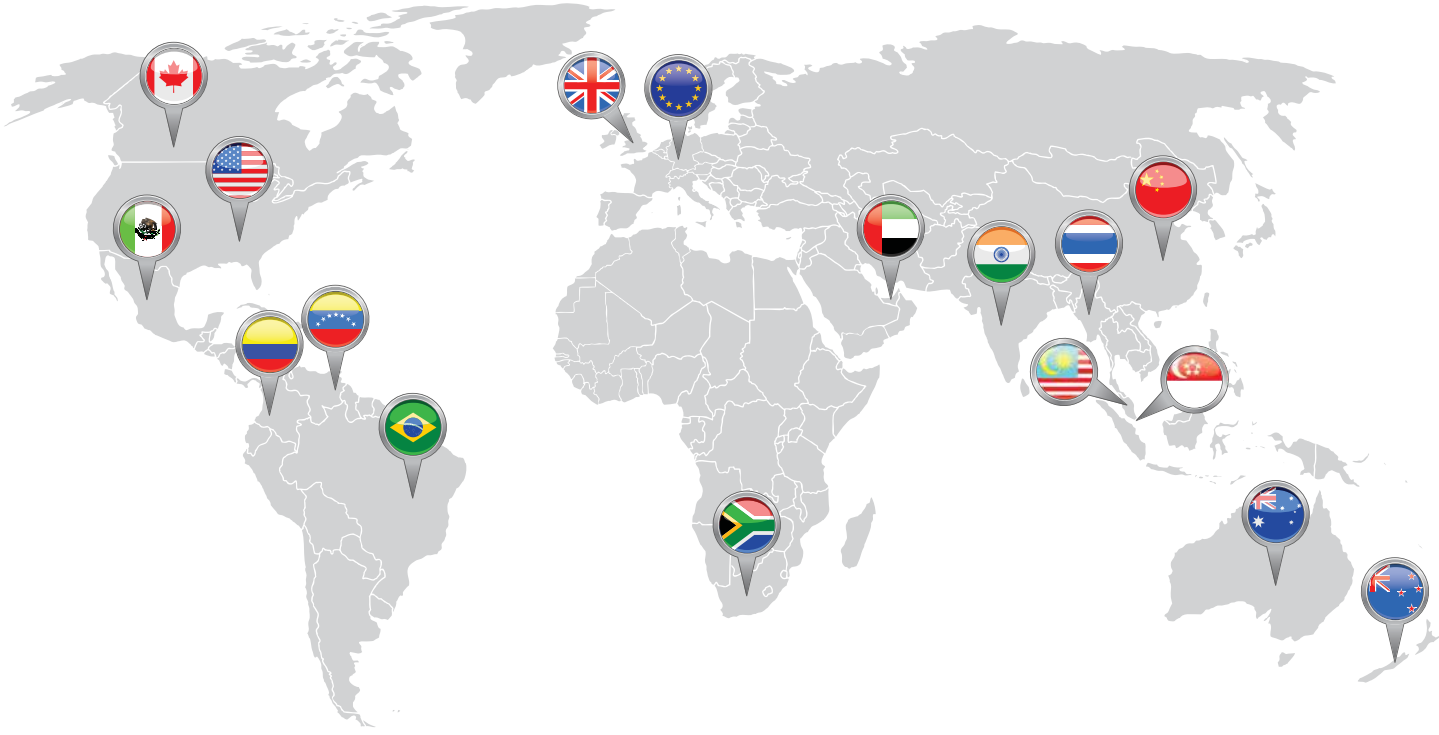
FIRE PUMP MOTOR INRUSH CURRENTS



Classification	Locked-Rotor Torque (% Rated-Load Torque)	Breakdown Torque (% Rated-Load Torque)	Locked-Rotor Current (% Rated-Load Current)
UL Fire Pump Motor	70-275*	175-300*	300-600
Design B – Normal locked-rotor torque and normal locked-rotor current	70-275*	175-300*	600-700
IEC 34-12 Design N locked-rotor torques and currents	75-190*	160-200*	800-1000

*Higher values are for motors having lower horsepower ratings.

REGAL WORLD FOOTPRINT *The motor you want, where you are, when you need.*



CODES & CERTIFICATIONS

FIRE PUMP SYSTEM – A fire pump system is part of a fire sprinkler system's water supply either connected to the public underground water supply piping, or a static water source.

A fire pump system is tested and listed for its use specifically for fire service by a third-party accredited testing and listing laboratory, such as FM, LPCB, UL, VdS. Additionally, installation of fire pump systems is coordinated by Comité Européen Des Assurances in Europe and the National Fire Protection Code in the U.S.

FIRE PUMP MOTORS – A fire pump motor is a definite purpose motor designed to meet *UL Standard of Safety 1004-1 Rotating Electrical Machines - General Requirements - and UL 1004-5 Fire Pump Motors*. These motors are designed and built with a low KVA code to reduce inrush currents, offer extended life, and are tested to meet the highest standards in the industry.

Fire pump motors consist of low voltage NEMA Open Dripproof motors, NEMA JM/JMV/JP/JPV Close-Coupled pump motors, NEMA vertical solid shaft P-base motors, NEMA vertical hollow shaft motors, NEMA Totally Enclosed motors. We manufacture a line of low voltage IEC Totally Enclosed motors and Marine Duty IEC Totally Enclosed motors. These motors carry the UL mark and file number for fire pump motors. Additionally, we manufacture a line of low voltage IEC non-UL motors in IE1, IE2, and IE3 efficiencies for Europe, certain areas of the Middle East, Asia, Africa, and portions of Latin America.

UL also defines requirements for fire pump motors above 500 HP and greater than 600 volts, Marathon markets a line of high efficiency 2300V, 4160V and 7.2kV NEMA and IEC open motors for fire pump applications. These motors meet the same high standards as Marathon's low voltage UL listed motors.

COMITÉ EUROPÉEN DES ASSURANCES (CEA) – Insurance Europe (known as *Comité Européen des Assurances* until March 2012) is the European insurance and reinsurance federation. Through its 34 member bodies — the national insurance associations — it represents all types of insurance and reinsurance undertakings. *Standard CEA 4046 – CEA Rules for the approval of Installers of Fire Fighting Systems in accordance with CEA 4046* covers the installation of fire pump systems.

FACTORY MUTUAL (FM) – Factory Mutual specializes in loss prevention services throughout the world in the Highly Protected Risk (HPR) property insurance market sector. The company employs a business model whereby risk and premiums are determined by engineering analysis as opposed to historically based actuarial calculations. FM engineering personnel regularly visit insured locations to evaluate hazards and recommend improvements.

FM Approved fire pump packages are produced using components that have been subjected to rigorous tests to ensure that they will perform when called upon throughout the duration of a fire event. A FM Approved fire pump system will test the driver (motor, diesel or steam), pump and controller as a system to assure the performance characteristics of the system meet the protection requirements for the property.

LOSS PREVENTION CERTIFICATION BOARD (LPCB) – The LPCB has been working with industry and government for more than 100 years to set the standards necessary to ensure that fire and security products and services work effectively.

In that time the LPCB Mark has become an internationally recognized mark of trust. Under the LPCB label, third-party certification and listing of fire and security products and services are available, so that: architects and specifiers can be sure that those they select will perform as required, and manufacturers and suppliers can demonstrate the quality of their products and services.

NATIONAL FIRE PROTECTION CODE 20 (NFPA 20) – *NFPA 20 – The Standard for Installation of Stationary Pumps for Fire Protection* codifies the requirements for safe electrical installations of a fire pump system into a single, standardized source. The NFPA 20 code covers water supply requirements, pump requirements, pump sizing, pump types, pump drivers, and accessory equipment such as values and flow meters used in a fire pump system. It is part of the National Fire Codes series published by the National Fire Protection Association (NFPA), and while not itself a U.S. law, NEC use is commonly mandated by state or local law.

UNDERWRITERS LABORATORY – Underwriters Laboratories (UL) is a global independent safety science company with more than a century of expertise innovating safety solutions. UL helps safeguard people, products and places by certify, validating, testing, inspecting, auditing, advising, and educating. *The UL Mark is the single most accepted certification for fire pump systems and motors in the world.*

VDS 2095 – VdS is an independent institution which has been ensuring safety and trust in the fields of fire protection and security for many decades. The activities of VdS in the field of fire protection are targeted at the effectiveness and reliability of installed fire protection systems. The basis of the VdS approval process are the coordinated European specifications for installers of fire protection and security systems (CEA 4048 and CEA 4049) of the Comité Européen des Assurances (CEA). Furthermore, the approval process takes full account of the requirements of DIN 14675 with regard to the proof of competence of the installers (described in DIN 14675 as specialist companies). VdS is accredited for the certification of BMA installers by Deutsche Akkreditierungs GmbH (DAkkS) according to DIN EN 45011.

marathon™ Motors

REGAL

ODP 50 HZ

MODEL	FRAME	POLES	HP	EFF(%)	P F	V	Hz	FLA (A)	LRA (A)	Rpm	Tst/Tn	Tm/Tn
256TTDBD4024	256T	2	20	89.5	0.88	190/380	50	58/29	431/215	2945	1.3	2
256TTDBD4024	256T	2	25	89.5	0.88	208/415	50	66/33	492/246	2940	1.3	2
256TTDBD4024	256T	2	20	90.2	0.87	200/400	50	54/27	409/204	2950	1.3	2
284TSTDBD4002	284TS	2	25	90.2	0.86	190/380	50	72/36	539/269	2955	1.3	2
284TSTDBD4002	284TS	2	30	90.2	0.85	208/415	50	81/40.6	591/296	2955	1.3	2
284TSTDBD4002	284TS	2	25	90.2	0.85	200/400	50	70/35	512/256	2960	1.3	2
284TSTDBD4009	284TS	2	30	91	0.87	190/380	50	87/43.5	647/323	2962	1.3	2
286TSTDBD4022	286TS	2	40	90.2	0.86	208/415	50	106/53	788/395	2950	1.25	2
286TSTDBD4022	286TS	2	30	91	0.85	200/400	50	84/42	614/307	2962	1.3	2
324TSTDCD4010	324TS	2	40	91.7	0.88	190/380	50	110/55	863/431	2965	1.25	2
324TSTDCD4010	324TS	2	50	91.7	0.88	208/415	50	128/64	985/493	2965	1.2	2
324TSTDCD4010	324TS	2	40	91.7	0.87	200/400	50	108/54	819/409	2970	1.25	2
326TSTDCD4024	326TS	2	50	92.4	0.88	190/380	50	139/70	1078/539	2962	1.2	2
326TSTDCD4024	326TS	2	60	91.7	0.88	208/415	50	152/76	1182/592	2962	1.2	2
326TSTDCD4024	326TS	2	50	92.4	0.87	200/400	50	132/66	1024/512	2965	1.2	2
364TSTDCD4025	364TS	2	60	92.4	0.88	190/380	50	166/83	1294/647	2970	1.2	2
364TSTDCD4025	364TS	2	75	92.4	0.88	208/415	50	190/95	1478/740	2965	1.05	2
364TSTDCD4025	364TS	2	60	92.4	0.87	200/400	50	160/80	1229/614	2972	1.2	2
365TSTDCD4025	365TS	2	75	92.4	0.88	190/380	50	210/105	1618/809	2970	1.05	2
365TSTDCD4025	365TS	2	100	92.4	0.88	208/415	50	256/128	1970/987	2965	1.05	2
365TSTDCD4025	365TS	2	75	93	0.87	200/400	50	200/100	1537/768	2972	1.05	2
404TSTDCD4017	404TS	2	100	93	0.88	380	50	135	1078	2975	1.05	2
404TSTDCD4017	404TS	2	125	93	0.89	415	50	155	1234	2970	1	2
404TSTDCD4017	404TS	2	100	93	0.87	400	50	130	1024	2978	1.05	2
405TSTDCD4006	405TS	2	125	93	0.89	380	50	168	1348	2970	1	2
405TSTDCD4006	405TS	2	150	93	0.89	415	50	185	1481	2970	1	2
405TSTDCD4006	405TS	2	125	93	0.88	400	50	160	1281	2975	1	2
444TSTDCD4010	444TS	2	150	94.1	0.88	380	50	200	1618	2978	1	2
444TSTDCD4010	444TS	2	200	94.1	0.89	415	50	245	1975	2975	1	2
444TSTDCD4010	444TS	2	150	94.5	0.87	400	50	190	1537	2980	1	2
445TSTDCD4007	445TS	2	200	94.1	0.88	380	50	265	2157	2975	1	2
445TSTDCD4007	445TS	2	250	94.1	0.89	415	50	305	2469	2975	0.7	1.75
445TSTDCD4007	445TS	2	200	94.2	0.87	400	50	252	2049	2978	1	2
	447TS	2	300	95	0.91	380	50	393	3236	2975	0.7	1.75
	447TS	2	300	95	0.91	415	50	360	2963	2975	0.7	1.75
	447TS	2	300	95	0.91	400	50	374	3074	2975	0.7	1.75
	449TS	2	350	95	0.91	380	50	459	3775	2975	0.7	1.75
	449TS	2	350	95	0.91	415	50	420	3457	2975	0.7	1.75
	449TS	2	350	95	0.91	400	50	436	3586	2975	0.7	1.75
	449TS	2	400	95.4	0.91	380	50	522	4315	2975	0.7	1.75

	449TS	2	400	95.4	0.91	415	50	478	3951	2975	0.7	1.75
	449TS	2	400	95.4	0.91	400	50	496	4099	2975	0.7	1.75
284TTDBD4027	284T	4	20	90.2	0.83	190/380	50	60/30	431/215	1472	1.5	2
284TTDBD4027	284T	4	25	90.2	0.83	208/415	50	70/35	492/246	1470	1.5	2
284TTDBD4027	284T	4	20	91	0.82	200/400	50	58/29	409/204	1475	1.5	2
286TTDBD4041	286T	4	25	91	0.85	190/380	50	73/37	539/269	1468	1.5	2
286TTDBD4041	286T	4	30	91	0.84	208/415	50	82/41	591/296	1468	1.4	2
286TTDBD4041	286T	4	25	91.7	0.84	200/400	50	70/35	512/256	1472	1.5	2
324TTDCD4038	324T	4	30	92.4	0.85	190/380	50	86/43	647/323	1478	1.5	2
324TTDCD4038	324T	4	40	91.7	0.84	208/415	50	108/54	788/395	1475	1.4	2
324TTDCD4038	324T	4	30	92.4	0.83	200/400	50	84/42	614/307	1480	1.5	2
326TTDCD4345	326T	4	40	92.4	0.85	190/380	50	115/57.5	863/431	1475	1.4	2
326TTDCD4345	326T	4	50	91.7	0.84	208/415	50	136/68	985/493	1472	1.4	2
326TTDCD4345	326T	4	40	92.4	0.84	200/400	50	111/55.5	819/409	1478	1.4	2
364TSTDCD4332	364TS	4	50	93	0.87	190/380	50	140/70	1078/539	1478	1.4	2
364TSTDCD4332	364TS	4	60	92.4	0.86	208/415	50	155/77.5	1182/592	1478	1.4	2
364TSTDCD4332	364TS	4	50	93	0.86	200/400	50	134/67	1024/512	1480	1.4	2
365TSTDCD4332	365TS	4	60	93.6	0.87	190/380	50	165/82.5	1294/647	1480	1.4	2
365TSTDCD4332	365TS	4	75	93.6	0.87	208/415	50	190/95	1478/740	1478	1.4	2
365TSTDCD4332	365TS	4	60	93.6	0.86	200/400	50	157/78.5	1229/614	1482	1.4	2
404TSTDCD4332	404TS	4	75	93.6	0.87	190/380	50	210/105	1618/809	1485	1.4	2
404TSTDCD4332	404TS	4	100	93.6	0.87	208/415	50	256/128	1970/987	1485	1.25	2
404TSTDCD4332	404TS	4	75	93.6	0.86	200/400	50	200/100	1537/768	1488	1.4	2
405TSTDCD4332	405TS	4	100	94.1	0.87	380	50	138	1078	1485	1.25	2
405TSTDCD4332	405TS	4	125	93.6	0.87	415	50	158	1234	1482	1.1	2
405TSTDCD4332	405TS	4	100	94.1	0.86	400	50	132	1024	1485	1.25	2
444TSTDCD4332	444TS	4	125	94.5	0.87	380	50	172	1348	1485	1.1	2
444TSTDCD4332	444TS	4	150	94.5	0.87	415	50	190	1481	1486	1.1	2
444TSTDCD4332	444TS	4	125	94.5	0.86	400	50	164	1281	1488	1.1	2
445TSTDCD4332	445TS	4	150	95	0.87	380	50	205	1618	1488	1.1	2
445TSTDCD4332	445TS	4	200	95	0.87	415	50	250	1975	1486	1	2
445TSTDCD4332	445TS	4	150	95.4	0.86	400	50	195	1537	1490	1.1	2
445TSTDCD14051	445TS	4	200	95.5	0.86	380	50	278	2157	1488	1	2
	445TS	4	250	95.4	0.86	415	50	316	2469	1486	0.8	1.75
	445TS	4	200	95.4	0.86	400	50	262	2049	1488	1	2
	447TS	4	300	95.4	0.86	380	50	414	3236	1480	0.8	1.75
	447TS	4	300	95.4	0.86	415	50	379	2963	1480	0.8	1.75
	447TS	4	300	95.4	0.86	400	50	394	3074	1480	0.8	1.75
	449TS	4	350	95.4	0.86	380	50	484	3775	1480	0.8	1.75
	449TS	4	350	95.4	0.86	415	50	443	3457	1480	0.8	1.75
	449TS	4	350	95.4	0.86	400	50	459	3586	1480	0.8	1.75
	449TS	4	400	95.4	0.86	380	50	553	4315	1480	0.8	1.75
	449TS	4	400	95.4	0.86	415	50	506	3951	1480	0.8	1.75
	449TS	4	400	95.4	0.86	400	50	525	4099	1480	0.8	1.75

DIESEL ENGINE
DATA SHEET

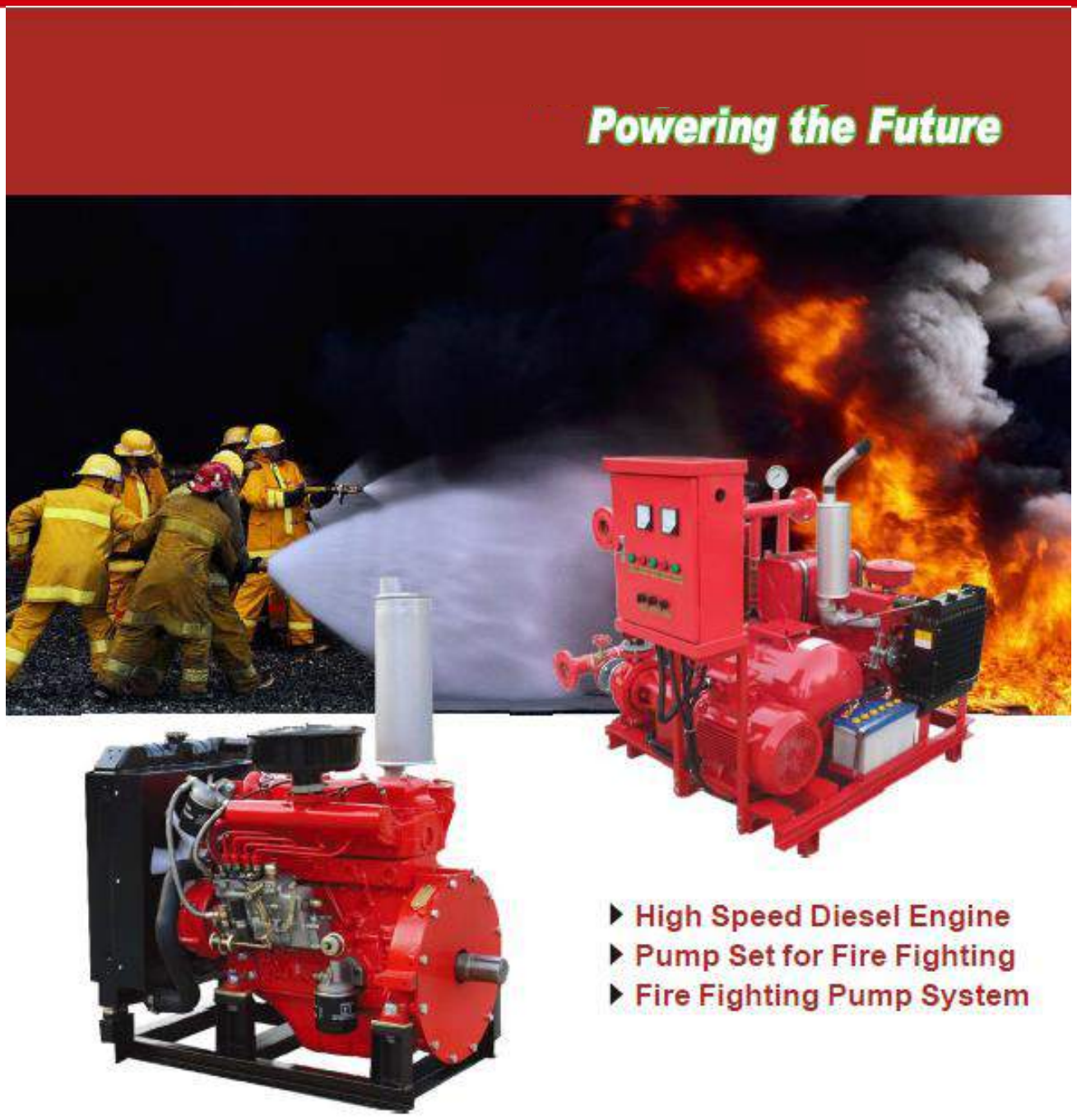
P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com

WATEX PUMPS

FIRE PUMP SET

DIESEL ENGINE

RADIATOR SERIES



- High Speed Diesel Engine
- Pump Set for Fire Fighting
- Fire Fighting Pump System

WATEX PUMPS

P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com

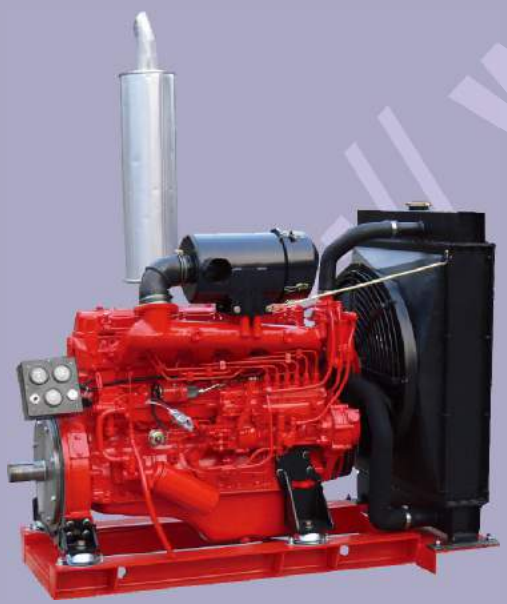
Powering the Future

2 Cylinder Diesel Engine
8-19HP

3 Cylinder Diesel Engine
27HP

4 Cylinder Diesel Engine
38HP-110HP

6 Cylinder Diesel Engine
130HP-170HP



6 Cylinder Diesel Engine
204HP-374HP

Specification of Diesel Engines

MODEL	380	480	485	490	4100	4102	4105	4108	6102BQ	6102BZQ	6102BZS	6112T	6120T	6120Ti	6126Ti-1	6126Ti-2
TYPE	VERTICAL,WATER-COOLED,FOUR-STROKE,DIRECTION-INJECTOR															
NUMBER OF CYLINDERS	3	4	4	4	4	4	4	4	6	6	6	6	6	6	6	6
BORE*STROKE(MM)	80*90	80*90	85*95	90*100	100*105	102*118	105*118	108*118	102*118	102*118	102*118	112*135	120*130	120*130	126*130	126*130
RATE POWER(KW)	20	27.8	34	44	55	63.8	70	80	95	110	125	150	165	200	245	275
RATE POWER(HP)	27	37	46	60	75	84	95	110	130	150	170	204	225	272	334	374
RATE SPEED(R/MIN)	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
TOTAL DISPLACEMENT(L)	1.357	1.809	2.156	2.54	3.298	3.857	4.087	4.324	5.785	5.785	5.785	7.98	8.82	8.82	9.73	9.73
MAX.TORQUE(N.M)	72.6	99.8	118.2	149.7	193.1	231.8	260	280	372	420	470	760	1250	1250	1640	1640
MIN.SPECIFIC FUEL CONSUMPTION AT FULL LOAD	247	247	262	247	238	238	238	238	205	205	205	201	201	201	203	203
DIRECTION OF CRANKSHAFT ROTATION(FACING TO FLYWHEEL)	COUNTER-CLOCKWISE															
LUBRICATING METHOD	PRESSURE AND SPLASH LUBRICATING															
STARTING METHOD	ELECTRIC STARTING															
NET MASS(KG)	230	250	260	300	350	360	380	400	580	580	580	1200	1300	1300	1400	1400

JOCKEY PUMP
DATA SHEET

P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com

2013
.08

RV,RVA

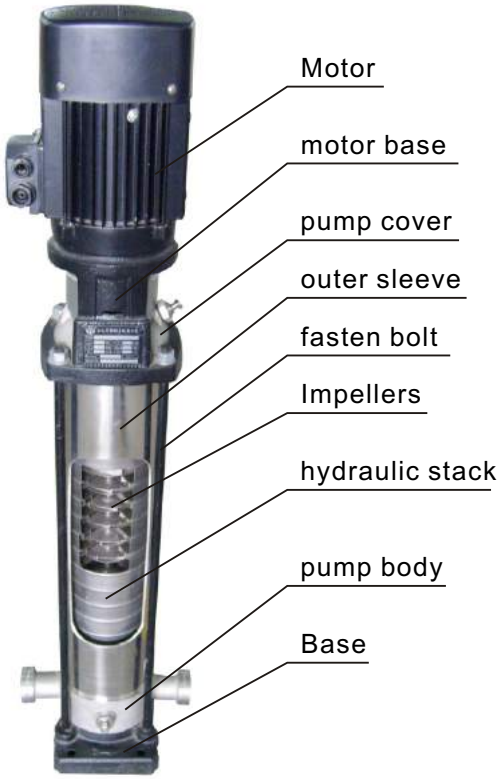
Vertical Multistage Centrifugal Pump

50Hz

Pump

RVA and RV are non-self priming vertical multistage centrifugal pump, the pumps are available with standard motor, the inlet and outlet are located at the pump bottom at the same plane (inline type).
All pumps are equipped with a maintenance-free mechanical seal set of the cartridge type.

Fig.1 RVA



Motor

RVA and RV are fitted with a totally enclosed、fan-cooled、2-pole、three-phase standard motor. From 0.37kW to 2.2kW, are also available with single-phase motor.(1*220-230V/240V).

Motor Protection

Single-phase motor have a built-in thermal overload switch.
Three-phase motors must be connected to a motor protective circuit breaker according to local regulations.

Ambient temperature

Ambient temperature: maximum+40℃, if the ambient temperature exceeds +40℃, or the pump is installed at an altitude exceeding 1000 meters, the motor must not be fully loaded due to the risk of overheating.
Overheating may result from excessive ambient temperatures or the low density and consequently low cooling effect of the air.
In such cases ,it may be necessary to use a motor with a higher rated output.

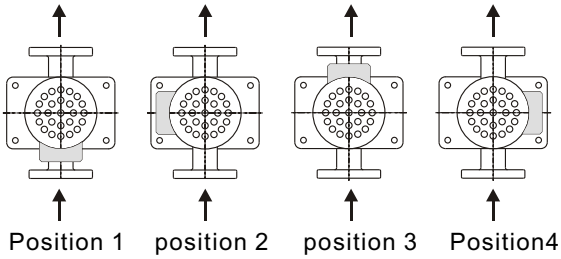
Terminal box positions

As standard the terminal box is mounted on the suction side of the pump, meanwhile, 0°,90°,180°,270° could be adjusted according to the following proceeding:

1. If necessary, disassembling the protective cover of the shaft connector, but did not disassembling the shaft connector.
2. Disassembling the motor fixation screws.
3. Turn the motor to the required direction.
4. Fasten the motor screws.
5. Install the shaft connector's protective cover.

The voltage and frequency are marked on the label, the correct power should be confirm with the label before usage.
To ensure the electric connection is conformity to the drawing marked on the label inside the terminal box.

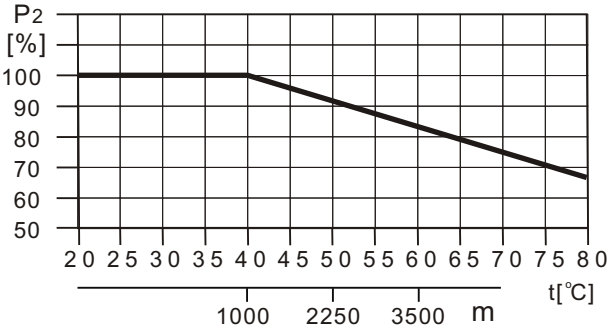
Fig2. Terminal box positions



Viscosity

The pumping of liquids with densities or kinematic viscosities higher than those of water will cause a considerable pressure drop, a drop in the hydraulic performance and a rise in the power consumption.
In such situations the pump should be fitted with a larger motor, if in doubt, contact.

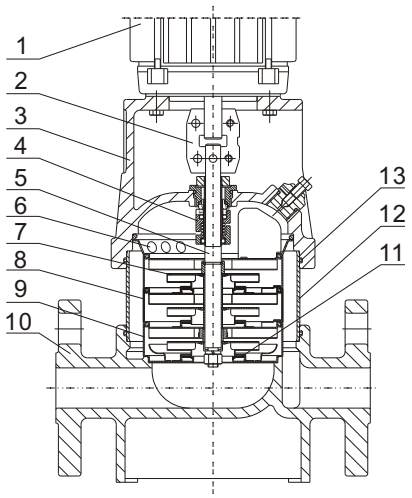
Fig.3 Relationship between motor output (P2) and temperature



Example:
From the Fig.3, the pump is installed at an altitude exceeding altitude 3500 meters, P2 will decrease to 88%, if the ambient temperature is up to 70℃,P2 will decrease to 78%.

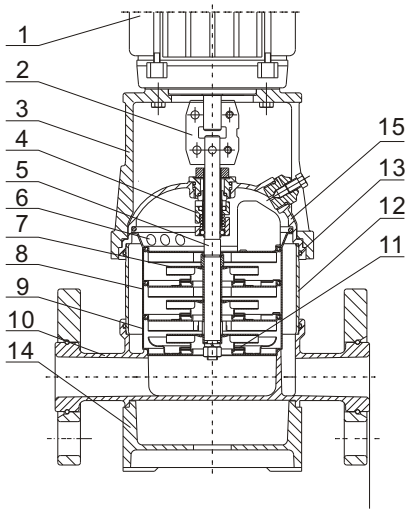
RV1,2,3,4,5

Sectional drawing



RVA1,2,3,4,5

Sectional drawing



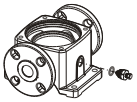
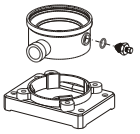
Material RV

No.	Description	Material	EN/DIN	AISI/ASTM
1	Motor			
2	Shaft connector			
3	Pump head	Castiron	EN-JL1030	ASTM25B
4	Mechanical seal			
5	Shaft	S.S		AISI420
6	Outlet	S.S	1.4301	AISI304
7	Impeller	S.S	1.4301	AISI304
8	Hydraulic stack	S.S	1.4301	AISI304
9	Inlet	S.S	1.4301	AISI304
10	Pump body	Castiron	EN-JL1030	ASTM25B
11	Neck ring	PTFE		
12	Outer sleeve	S.S	1.4301	AISI304
13	O-ring	EPDM/FKM		

Material RVA

No.	Description	Material	EN/DIN	AISI/ASTM
1	Motor			
2	Shaft connector			
3	Pump head	Castiron	EN-JL1030	ASTM25B
4	Mechanical seal			
5	Shaft	S.S	1.4057	AISI431
6	Outlet	S.S	1.4301	AISI304
7	Impeller	S.S	1.4301	AISI304
8	Hydraulic stack	S.S	1.4301	AISI304
9	Inlet	S.S	1.4301	AISI304
10	Pump body	S.S	1.4301	AISI304
11	Neck ring	PTFE		
12	Outer sleeve	S.S	1.4301	AISI304
13	O-ring	EDM/FKM		
14	Bottom base	Castiron	EN-JL1030	ASTM25B
15	Pump cover	S.S	1.4301	AISI304

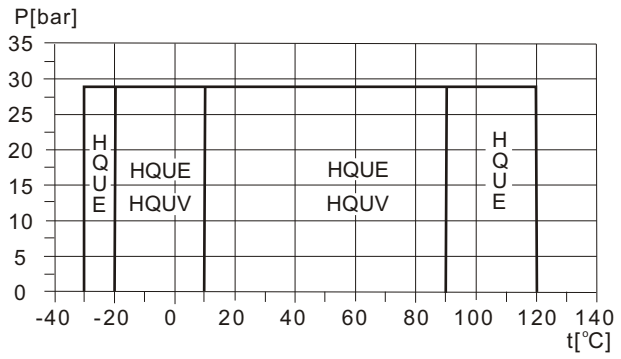
Maximum operating pressure and temperature range

	DIN-FGJ	UNION	PJE
			
	Max. permissible operating pressure		Liquid temperature range
RV,RVA1	25bar		-20℃ to +104℃
RV,RVA2	25bar		-20℃ to +104℃
RV,RVA3	25bar		-20℃ to +104℃
RV,RVA4	25bar		-20℃ to +104℃
RV,RVA5	25bar		-20℃ to +104℃
RV,RVA10-1→RV,RVA10-10	16bar		-20℃ to +104℃
RV,RVA10-12→RV,RVA10-17	25bar		-20℃ to +104℃
RV,RVA15-1→RV,RVA15-8	16bar		-20℃ to +104℃
RV,RVA15-9→RV,RVA15-12	25bar		-20℃ to +104℃
RV,RVA20-1→RV,RVA20-7	16bar		-20℃ to +104℃
RV,RVA20-8→RV,RVA20-10	25bar		-20℃ to +104℃
RV,RVA32-1-1→RV,RVA32-5	16bar		-20℃ to +104℃
RV,RVA32-6-2→RV,RVA32-8	25bar		-20℃ to +104℃
RV,RVA32-9-2→RV,RVA32-10-2	30bar		-20℃ to +104℃
RV,RVA45-1-1→RV,RVA45-4	16bar		-20℃ to +104℃
RV,RVA45-5-2→RV,RVA45-6-1	25bar		-20℃ to +104℃
RV,RVA45-6→RV,RVA45-7	30bar		-20℃ to +104℃
RV,RVA64-1-1→RV,RVA64-3	16bar		-20℃ to +104℃
RV,RVA64-4-2→RV,RVA64-5-2	25bar		-20℃ to +104℃
RV,RVA90-1-1→RV,RVA90-3	16bar		-20℃ to +104℃
RV,RVA90-4-2	25bar		-20℃ to +104℃

Operating range of the shaft seal

The operating range of the shaft seal depends on operating pressure, pump type, type of shaft seal and liquid temperature.The range shown in fig 4. Applies to clean water and water with glycol liquids.

Fig.4 Operating range of standard shaft seals



Minimum inlet pressure-NPSH

Calculation of the inlet pressure "H" is recommended in these situations :

- the liquid temperature is high.
- the flow is significantly higher than the rated flow.
- water is drawn from depths.
- water is drawn through long pipes.

inlet conditions are poor. to avoid cavitation, make sure that there is a minimum pressure on the suction side of the pump.

The maximum suction lift "H" in metres head can be calculated as follows:

$H=P_b*10.2-NPSH-Hf-Hv-Hs$

P_b = Barometric pressure in bar.
(Barometric pressure can be set to 1 bar).
in closed systems,P_b indicates the system pressure in bar.

NPSH = Net positive suction Head in metres head.
(To be read from the NPSH curve at the highest flow the pump will be deivering).

Hf = Friction loss in suction pipe(unit:m).
(At the highest flow the pump will be delivering.)

Hv = Vapour pressure (unit:m).
(To be read from the vapour pressure scale).

Hs = safty margin=minimum 0.5 metres head.

If the "H" calculted is positive,the pump can operate at a suction lift of maximum "H" metres head. If the "H" calculted is negative,
an inlet pressure of minimum "H" metres head is required.

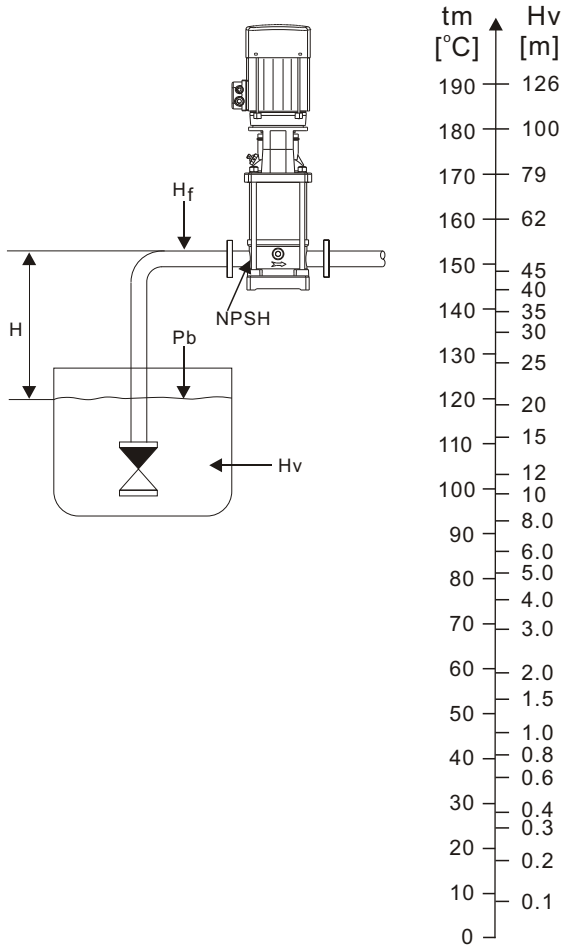
Example:

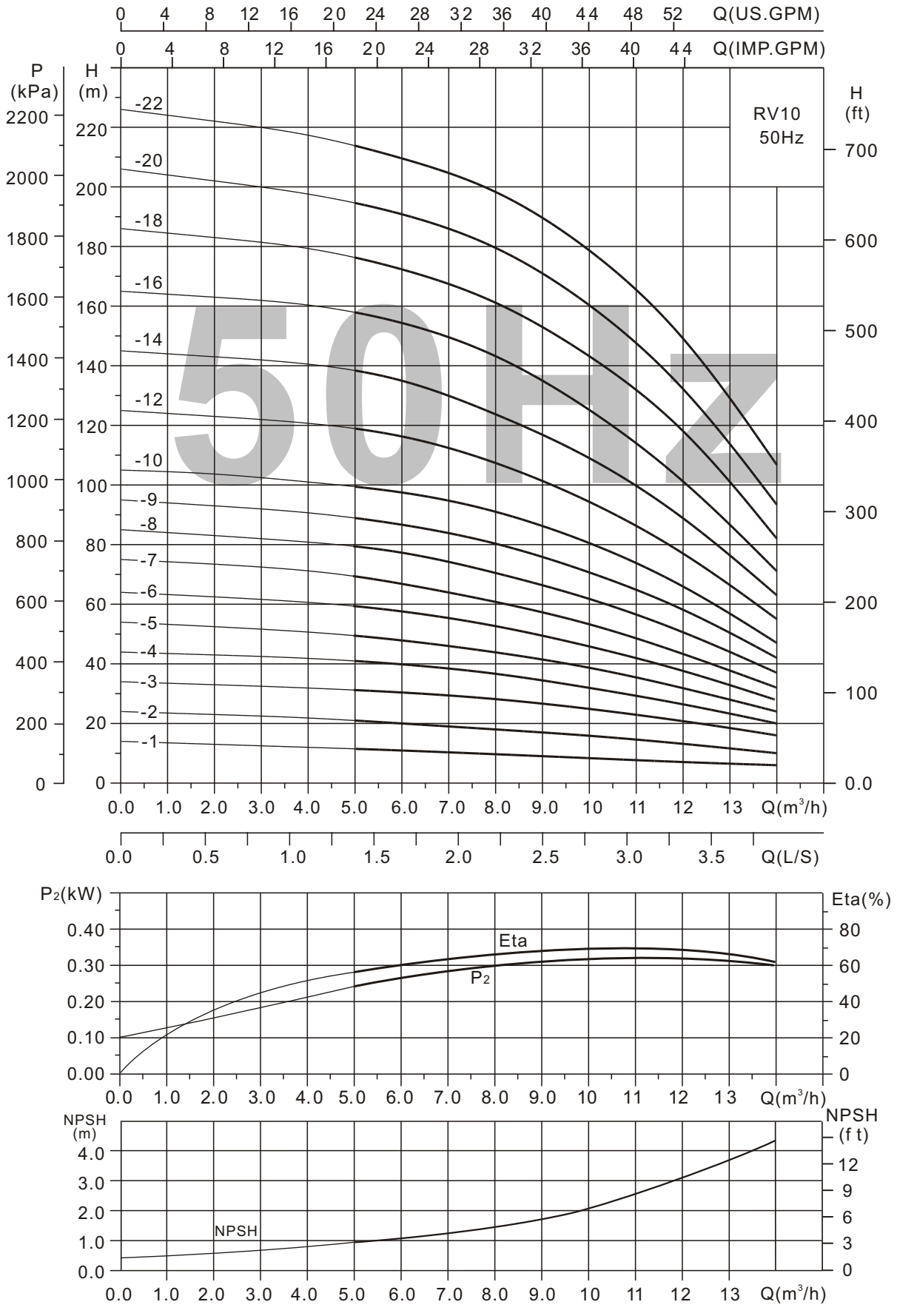
P_b=1bar
pump model:RVA10,50Hz
flow: 10m^3/h
NPSH(P36 reference:2.1 metres head.
liquid temperature:+50C
Hv(reference picture4):1.3metres head.
$H=P_b*10.2-NPSH-Hf-Hv-Hs$
$H=1*10.2-2.1-3.0-1.3-0.5=3.3$(metres)

It means the pump can operate at a suction lift of maximum 3.3 metres head.

exchaged meter head to bar:
1 metre head=1*0.0981=0.0981bar
exchaged metre head to kpa:
1 metre head=1*9.81=9.81kpa.

Fig.13 Mimimum inlet pressure-NPSH

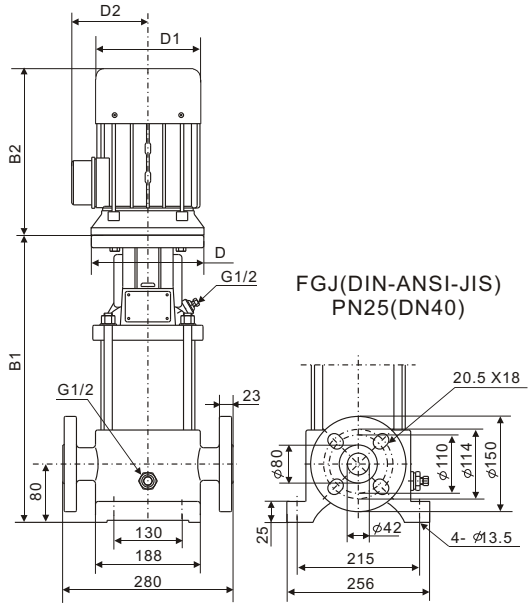



Q(US.GPM)
Q(IMP.GPM)
P (kPa)
H (m)
H (ft)
RV10
50Hz
-22
-20
-18
-16
-14
-12
-10
-9
-8
-7
-6
-5
-4
-3
-2
-1
Q(m³/h)
Q(L/S)
P2(kW)
Eta(%)
Eta
P2
NPSH (m)
NPSH (ft)
NPSH
Q(m³/h)

Performance table

Model	Power P_2(kW)	Q (m^3/h)	2.0	4.0	6.0	8.0	10	12	14
RV10-1	0.37		13	12	11	9.5	8.5	7	6
RV10-2	0.75		23	22	20	18	16	13	10
RV10-3	1.1		33	32	31	28	25	21	16
RV10-4	1.5		43	42	40	37	32	27	20
RV10-5	2.2		53	51	48	44	39	32	24
RV10-6	2.2		62	61	58	53	46	38	28
RV10-7	3.0		73	72	67	61	54	43	32
RV10-8	3.0	H (m)	83	81	78	71	62	51	37
RV10-9	3.0		93	91	87	81	71	59	42
RV10-10	4.0		104	101	98	91	81	67	47
RV10-12	4.0		123	121	117	108	95	78	55
RV10-14	5.5		143	141	136	124	110	90	63
RV10-16	5.5		163	161	154	143	125	102	71
RV10-18	7.5		183	179	173	161	144	118	82
RV10-20	7.5		202	198	191	180	160	133	93
RV10-22	7.5		222	217	209	198	178	149	106

Installation sketch



Dimensions and weights

Model	Dimensions(mm)						Weight (kg)
	B1	B2	B1+B2	D	D1	D2	
RV10-1	322	205	527	–	133	102	38
RV10-2	352	205	557	–	133	102	40
RV10-3	388	241	629	–	154	111	43
RV10-4	418	241/293	659/711	–	154	111	50
RV10-5	456	275/293	731/749	–	177	116	53
RV10-6	486	275/293	761/779	–	177	116	55
RV10-7	516	293	791	–	177	116	60
RV10-8	546	293	818	–	177	116	61
RV10-9	576	293	848	–	177	116	63
RV10-10	626	305	931	–	197	148	65
RV10-12	686	305	991	–	197	148	68
RV10-14	761	390	1151	300	275	210	98
RV10-16	821	390	1211	300	275	210	100
RV10-18	881	390	1271	300	275	210	125
RV10-20	941	390	1331	300	275	210	128
RV10-22	1001	390	1361	300	275	210	130

VALVES
DATA SHEET

P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com

ONTOR

Best manufacturer of valves

Valves for Fire Protection

CONTENT

Resilient seated NRS gate valve grooved end

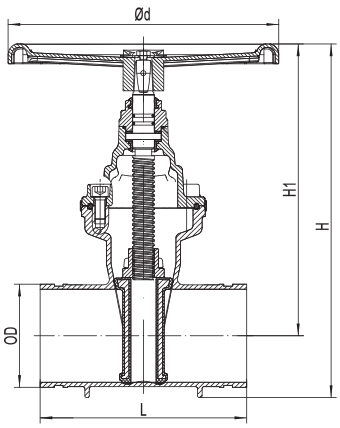
Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS431 or SS304, SS316, bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Upper cover	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Handwheel	Ductile iron

c UL us LISTED

Model No. 1107

Technical data >

- Sizs: DN50/60~DN200/219
- Working pressure: PN25, 362PSI
- Valve standard: AWWA C515
- Grooved standard: AWWA C606
- Temperature range: 0 ~ 80℃



Dimensions		Pressure rating	Size (mm)				
DN	inch	psi	ΦD	L	H1	H	Φd
50	2	362	60.3	178	256	301	203
65	2.5	362	73	190	256	307.5	203
			76.1			309	
80	3	362	88.9	203	273.5	333	203
100	4	362	114.3	229	323.5	396	300
125	5	362	139.7	254	376	461	300
			141.3			462	
150	6	362	165.1	267	423.5	521	300
			168.3			523	
200	8	362	219.1	292	530.5	660	406

Resilient seated OS&Y gate valve-grooved end

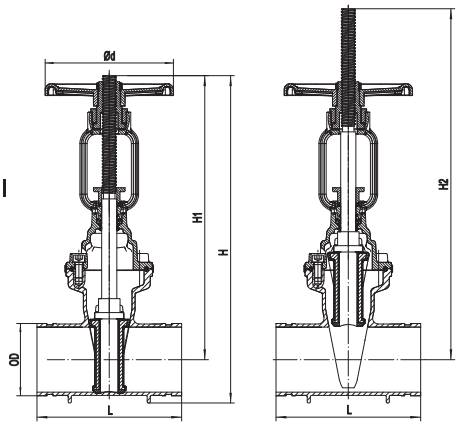
Name of parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS431 or SS304, SS316, bronze
Bonnet	Ductile iron
Bonnet Gasket	EPDM
Sealing Ring	EPDM
Yoke	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot galvanization
O-rings	EPDM
Handwheel	Ductile iron

c UL us LISTED

Model No. 1207

Technical data >

- Sizs: DN50/60~DN200/219
- Working pressure: PN25, 362PSI
- Valve standard: AWWA C515
- Grooved standard: AWWA C606
- Temperature range: 0 ~ 80℃



Dimensions		Pressure rating	Size (mm)					
DN	inch	psi	OD	L	H1	H2	H	Φd
50	2	362	60.3	178	358.5	420.5	403.5	203
65	2.5	362	73	190	359.5	429.5	411	203
			76.1					
80	3	362	88.9	203	378	462	437.5	203
100	4	362	114.3	229	449.5	553	518.5	203
125	5	362	139.7	254	549.5	677	631	300
			141.3					
150	6	362	165.1	267	591.5	747	686	300
			168.3					
200	8	362	219.1	292	735.5	938	865	330

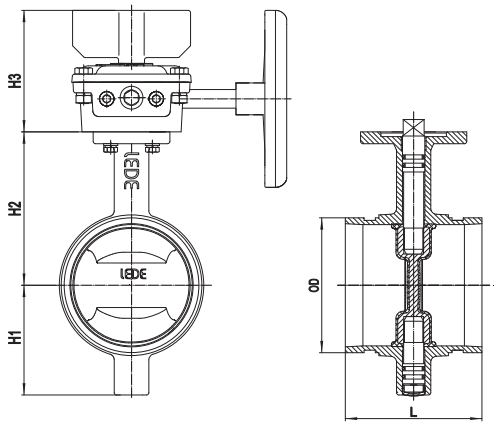
ONTOR

Butterfly valve with tamper switch grooved end

Model No. 2401

c UL us LISTED

Name of parts	Material
Body	Ductile iron
Plug	EPDM
Driven shaft	1Cr17Ni2
Disc	Ductile iron and EPDM
Actuating shaft	1Cr17Ni2
Bearing bush	Bronze
O-rings	EPDM
Gear operator	Ductile iron and steel



Technical data >

- Sizs: 60.3~219.1
- Working pressure: 60.3~168.3 362 psi, 219.1 232psi
- Valve standard: MSS SP-67
- Grooved standard: AWWA C606
- Top Flange standard: EN ISO 5211
- Temperature range: 0 ~ 80℃
- Suitable for indoor and outdoor use

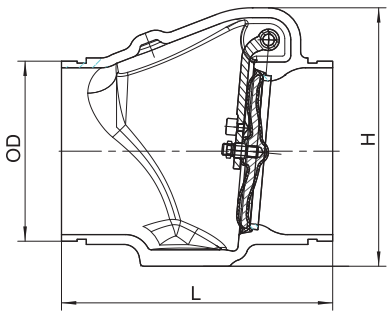
Dimensions		Pressure rating	Size (mm)					
DN	inch	psi	OD	L	H1	H2	H3	Top Flange
50	2	362	60.3	81	56	91	103	F05
65	2.5	362	73	96.8	68	104	103	F05
			76.1					
80	3	362	88.9	96.8	75	111	103	F07
100	4	362	114.3	115.8	93	130	103	F07
125	5	362	139.7	147.6	111	153	103	F07
			141.3		111	153		
150	6	362	165.1	147.6	123	165	103	F07
			168.3		123	165		
200	8	362	219.1	133.4	160	194	109	F07

Swing check valve with grooved end

Name of parts	Material
Body	Ductile iron
Seat Ring	Bronze
Disc Sealing Ring	EPDM
Disc Plate	SS304
Disc	Ductile iron
Clapper Arm	Ductile iron
Bonnet Gasket	EPDM
Bonnet	Ductile iron
Hinge Pin	SS304
Hinge Bushing	Bronze
Hinge Plug	SS304

c UL us LISTED

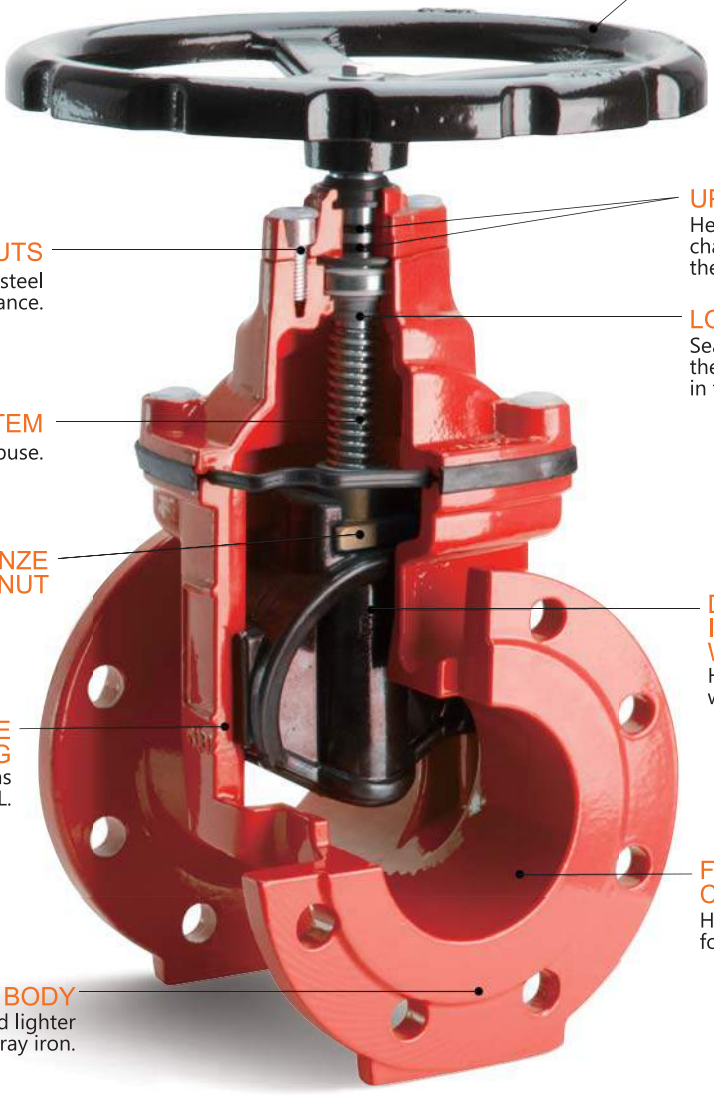
Model No. 3102



Technical data >

- Sizs: 2"~12"
- Working pressure: 362psi
- Grooved standard: AWWA C606
- Temperature range: 0 ~ 80℃

Dimensions		Pressure rating	Size (mm)		
DN	inch	psi	OD	L	H
50	2	362	60.3	167	122.5
65	2.5	362	73	180	136.5
			76.1		
80	3	362	88.9	198	165.5
100	4	362	114.3	229	193.6
125	5	362	139.7	254	235.5
			141.3		
150	6	362	165.1	272	252
			168.3		
200	8	362	219.1	330	314.5



DUCTILE IRON HAND WHEEL
Provides strength and durability.

UPPER O-RING SEALS
Helps isolate the lubrication chamber as well as shield the stem from dirt and grit.

BOLTS & NUTS
304 stainless steel or carbon steel for corrosion resistance.

LOWER SEALING DEVICE
Seals lubrication chamber and enables the replacement of O-Rings in the working condition.

STAINLESS STEEL STEM
Resists corrosion and abuse.

HIGH-STRENGTH BRONZE WEDGE NUT

DUCTILE IRON WEDGE IS ENCAPSULATED WITH EPDM RUBBER
Helps ensure zero leakage with low stem torque.

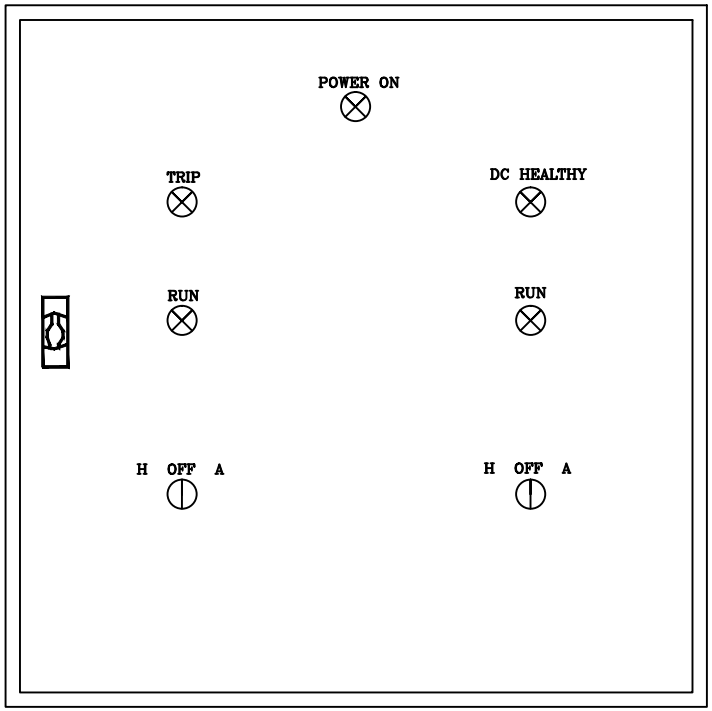
360 PSI PRESSURE RATING
Standard for AWWA as well as FM and UL.

FUSION-BONDED EPOXY COATING INSIDE & OUT
Helps ensure corrsion resistance for long service life.

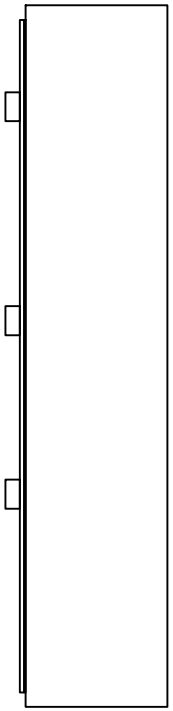
DUCTILE IRON VALVE BODY
Greater strength, durability and lighter weight than cast gray iron.

CONTROL PANEL
DATA SHEET

P.O. Box : 78218
Email: marketing@futurepump.co
Tel: +971 5 24272800
sales@futurepump.co
U.A.E: Sharjah – Ajman – Umm Al Quwain
Jordan: Amman
Website: www.watexindustries.com



FRONT VIEW



SIDE VIEW

TECHNICAL SPECIFICATIONS

SYSTEM VOLTAGE>
INCOMING SUPPLY : 220V / 1PH

ENCLOSURE>
ELECTRO-GALVANISED SHEET STEEL
ENCLOSURE TO PROTECTION STANDARD - IP55
DIMENSIONS : 400H x 300W x 200D mm
TYPE OF MOUNTING : WALL
CABLE ENTRY : BOTTOM
PAINT FINISH : EPOXY PAINTED, POWDER COATED TO PEBBLE GRAY, RAL-7032

WIRING>
MINIMUM L.V. CONTROL WIRES - 1.5mm FLEXIBLE
ALL CONTROL WIRING FERRULED AT ENDS AS PER WIRING DIAGRAM
ALL POWER WIRES 4 mm FLEXIBLE.

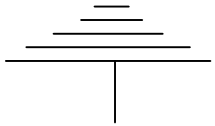
LABELS>
FACIA LEGEND PLATES OF 2mm ENGRAVED TRAFFOLYTE WITH BLACK LETTERS ON WHITE BACKGROUND.

REV.NO	DATE	DESCRIPTION	DRN.BY	CKD.BY	APP.BY
0	17/06/2020	–	HASSAN	HASSAN	HAMZA

WATEX PUMPS INDUSTRIES
UAE–AJMAN–NEW INDUSTRIAL AREA–AMMAN STREET

TITLE :–
STANDARD FIRE PUMP
FACIA DRAWING

SCALE :–	DRG. NO. :	REV.
NTS	001	0



P	N	P	N	22	23	52	53	5	0	55	11	12	13	14

220 AC INCOMING POWER SUPPLY

TO MOTOR

P.S FOR ELECTRIC PUMP

P.S FOR DIESEL PUMP

BATTERY POSITIVE

BATTERY NEGATIVE

ENGINE STARTER

FIRE ALARM,DIESEL RUN

FIRE ALARM,ELECTRIC RUN

CONTROL CIRCUIT

0	17/06/2020	–	HASSAN	HASSAN	HAMZA
REV.NO	DATE	DESCRIPTION	DRN.BY	CKD.BY	APP.BY

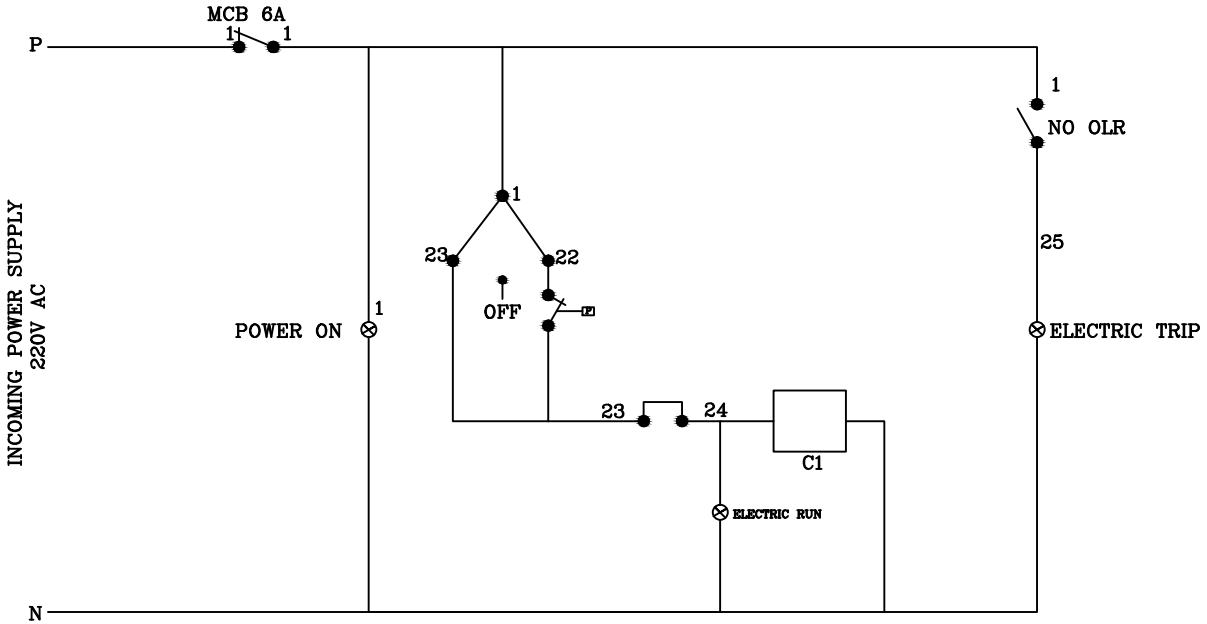
WATEX PUMPS

WATEX PUMPS INDUSTRIES

UAE–AJMAN–NEW INDUSTRIAL AREA–AMMAN STREET

TITLE :– CONTROL CIRCUIT

SCALE :–	DRG. NO. :	REV.
NTS	002	0



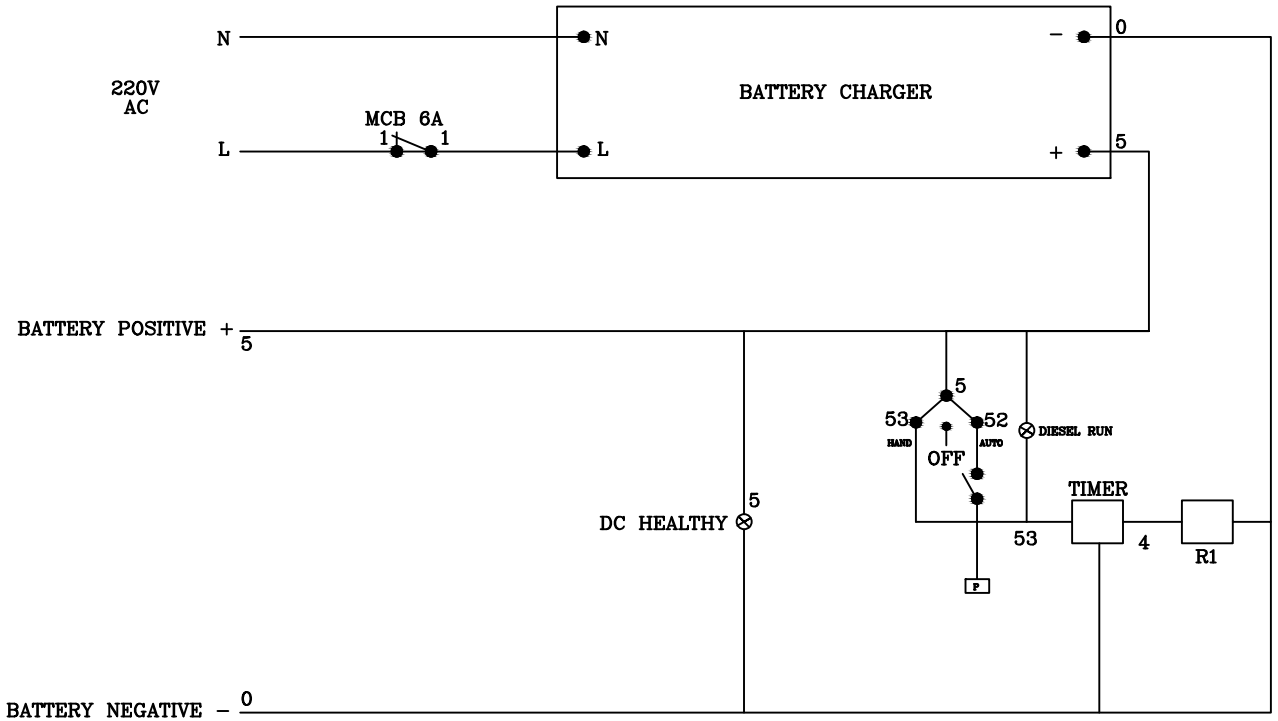
CONTROL CIRCUIT FOR ELECTRIC

REV.NO	DATE	DESCRIPTION	DRN.BY	CKD.BY	APP.BY
0	17/06/2020	–	HASSAN	HASSAN	HAMZA

WATEX PUMPS INDUSTRIES
UAE–AJMAN–NEW INDUSTRIAL AREA–AMMAN STREET

TITLE :–
CONTROL CIRCUIT FOR ELECTRIC

SCALE :–	DRG. NO. :	REV.
NTS	003	0



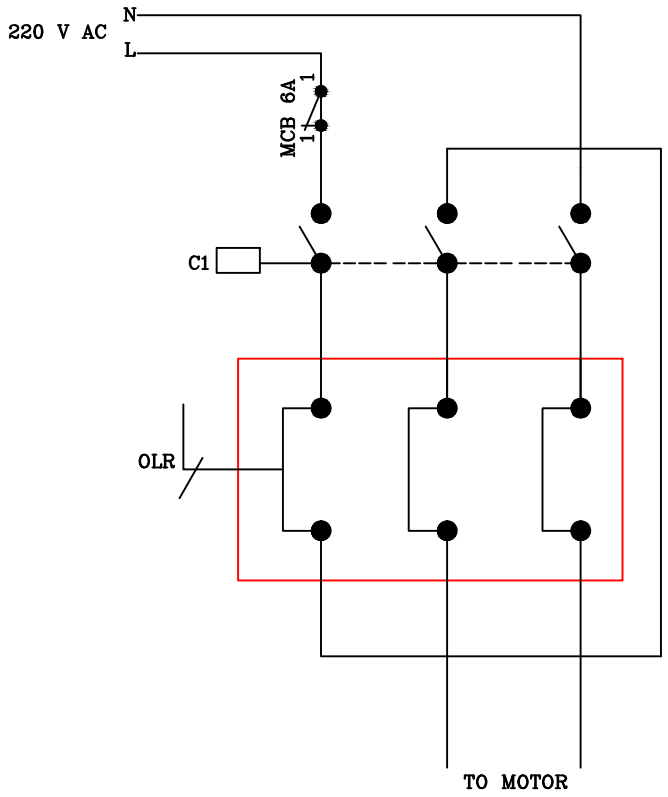
CONTROL CIRCUIT FOR DIESEL

REV.NO	DATE	DESCRIPTION	DRN.BY	CKD.BY	APP.BY
0	17/06/2020	−	HASSAN	HASSAN	HAMZA

WATEX PUMPS INDUSTRIES
UAE−AJMAN−NEW INDUSTRIAL AREA−AMMAN STREET

TITLE :−
CONTROL CIRCUIT FOR DIESEL

SCALE :−	DRG. NO. :	REV.
NTS	004	0



POWER CIRCUIT

0	17/06/2020	–	HASSAN	HASSAN	HAMZA
REV.NO	DATE	DESCRIPTION	DRN.BY	CKD.BY	APP.BY

WATEX PUMPS

WATEX PUMPS INDUSTRIES

UAE–AJMAN–NEW INDUSTRIAL AREA–AMMAN STREET

TITLE :–

POWER CIRCUIT

SCALE :–	DRG. NO. :	REV.
NTS	005	0