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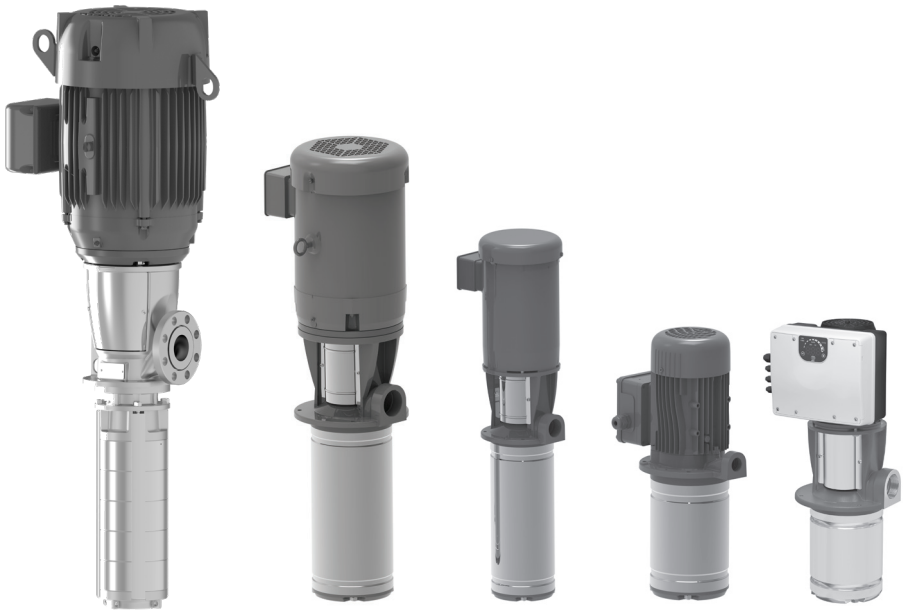
SPECIFICATIONS
eSVISPEC R2



e-SVI

IMMERSIBLE MULTISTAGE CENTRIFUGAL PUMP
TYPICAL ENGINEERING SPECIFICATIONS

GOULDS
WATER TECHNOLOGY
a xylem brand

I. Scope

The contractor shall provide _____ (quantity) immersible multistage centrifugal pump unit/s, Model e-SVI as manufactured by Goulds Water Technology, a Xylem brand, or equal. All pump units shall be from one manufacturer and provided complete including electric motor drive.

II. Conditions of Service

A. Equipment Item Number	_____	_____	_____
B. Discharge Connection Size	_____	_____	_____
C. Primary Service Condition			
Capacity (GPM)	_____	_____	_____
Total Head (feet)	_____	_____	_____
Efficiency (%)	_____	_____	_____
D. Minimum Shutoff Head	_____	_____	_____
E. Minimum Flow Allowed	_____	_____	_____
F. Operating Speed	_____	_____	_____
G. Maximum Motor HP	_____	_____	_____

III. Pump Construction

Each pump shall include the following design features:

A. Pump End Components

A.1 Discharge Head and Motor Adapter

The pump motor adapter shall be constructed of ASTM class 35 cast iron or AISI 316 cast stainless steel and shall be capable of withstanding the maximum working pressure. The pump discharge connection shall be compatible with .75" NPT (1-5 e-SVI closed coupled), 1.25" NPT (1-5 e-SVI coupled), 2" NPT (10-22 e-SVI), and 2.5" and 3" flange (33-92 e-SVI coupled).

A.2 Wear Ring

Wear rings composed of PPS shall be provided within each stage. Wear rings must be self centering and easily replaceable.

A.3 Impeller

Impellers shall be of enclosed design and constructed of AISI 316L or AISI 304L stainless steel. Impellers shall provide internal thrust balance in each stage.

A.4 Diffuser Bowl

Each stage shall have a bowl with attached diffuser and be constructed of AISI 304L or 316L stainless steel.

A.5 Mechanical Seal

The pump will be standard with a silicon carbide/carbon seal and FKM elastomers. For more aggressive applications, select one of the optional corresponding seal material configurations below.

Pump sizes 1-92 (coupled) can be configured with the optional pre-assembled cartridge seal. The standard mechanical seal shall be replaceable without removing the motor on sizes 1-22 (coupled).

1-22 e-SVI COUPLED (STANDARD)

CODE	TYPE	SEAL COMPONENT					TEMPERATURE (°F)
		1	2	3	4	5	
		ROTATING PART	STATIONARY PART	ELASTOMERS	SPRINGS	OTHER COMPONENTS	
	STANDARD MECHANICAL SEAL						
0	Q_1 B V G G	Silicon carbide	Resin impregnated carbon	FKM	AISI 316	AISI 316	14 to 194
	OTHER TYPES OF MECHANICAL SEAL						
2	Q_1 Q_1 V G G	Silicon carbide	Silicon carbide	FKM	AISI 316	AISI 316	14 to 194
4	Q_1 Q_1 E G G	Silicon carbide	Silicon carbide	EPDM	AISI 316	AISI 316	-22 to 194
8	U_3 U_3 V G G	Tungsten carbide *	Tungsten carbide *	FKM	AISI 316	AISI 316	14 to 194

** For cartridge seal only.*

1-3-5 e-SVI CLOSE-COUPLED (COMPACT)

CODE	TYPE	SEAL COMPONENT					TEMPERATURE (°F)
		1	2	3	4	5	
		ROTATING PART	STATIONARY PART	ELASTOMERS	SPRINGS	OTHER COMPONENTS	
	STANDARD MECHANICAL SEAL						
0	Q_1 B V G G	Silicon carbide	Resin impregnated carbon	FKM	AISI 316	AISI 316	14 to 140
	OTHER TYPES OF MECHANICAL SEAL						
4	Q_1 Q_1 E G G	Silicon carbide	Silicon carbide	EPDM	AISI 316	AISI 316	-22 to 140
8	U_3 U_3 V G G	Tungsten carbide	Tungsten carbide	FKM	AISI 316	AISI 316	14 to 140

33-92 e-SVI COUPLED

CODE	TYPE	SEAL COMPONENT					TEMPERATURE (°F)
		1	2	3	4	5	
		ROTATING PART	STATIONARY PART	ELASTOMERS	SPRINGS	OTHER COMPONENTS	
	STANDARD MECHANICAL SEAL						
0	Q_1 B V G G	Silicon carbide	Resin impregnated carbon	FKM	AISI 316	AISI 316	14 to 140
	OTHER TYPES OF MECHANICAL SEAL						
2	Q_1 Q_1 V G G	Silicon carbide	Silicon carbide	FKM	AISI 316	AISI 316	14 to 194
4	Q_1 Q_1 E G G	Silicon carbide	Silicon carbide	EPDM	AISI 316	AISI 316	22 to 194
8	U_3 U_3 V G G	Tungsten carbide	Tungsten carbide	Viton	AISI 316	AISI 316	14 to 194

A.6 Shaft Sleeve and Bearing

The pump shall have shaft sleeves made of tungsten carbide and ceramic bearings.

A.7 Inducer

The pump shall be equipped with an inducer and a minimum immersion level of 0.8" for sizes 1-92.

A.8 Coupling and Guard

Coupling – The pump shall have split type aluminum coupling that allows for easier service. All rotating components of the drive end are isolated by the formed metal coupling guards and bolted in place on the motor adapter.

Close-coupled – The pump shall have a one piece shaft with threaded coupling that attaches to the motor.

A.9 Suction Base and Strainer

The suction base shall be made of ASTM CF8M (AISI 316 cast) and strainer shall be made of AISI 316.

A.10 Hardware

The pump shall be completely assembled with stainless steel fasteners.

IV. Electric Motor

Motors shall be of standard manufacturers catalog design and must not use special bearings as a thrust handling device. The motor rating shall be:

_____ HP, _____ RPM

_____ phase,_____ Hz, _____ volts

_____ Enclosure

V. Testing

A. Production performance testing will be conducted by the manufacturer on each pump unit. Head at three operating points (70% of BEP, BEP and 120% of BEP) will be measured to verify performance.

B. Pump performance shall be ANSI/HI 14.6 Grade 2B compliant.

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