



PROCESS
INDUSTRY
PRACTICES

COMPLETE REVISION
January 2017

Machinery

PIP RESP005D
Data Sheet for Sealless Centrifugal Pumps

PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

In an effort to minimize the cost of process industry facilities, this Practice has been prepared from the technical requirements in the existing standards of major industrial users, contractors, or standards organizations. By harmonizing these technical requirements into a single set of Practices, administrative, application, and engineering costs to both the purchaser and the manufacturer should be reduced. While this Practice is expected to incorporate the majority of requirements of most users, individual applications may involve requirements that will be appended to and take precedence over this Practice. Determinations concerning fitness for purpose and particular matters or application of the Practice to particular project or engineering situations should not be made solely on information contained in these materials. The use of trade names from time to time should not be viewed as an expression of preference but rather recognized as normal usage in the trade. Other brands having the same specifications are equally correct and may be substituted for those named. All Practices or guidelines are intended to be consistent with applicable laws and regulations including OSHA requirements. To the extent these Practices or guidelines should conflict with OSHA or other applicable laws or regulations, such laws or regulations must be followed. Consult an appropriate professional before applying or acting on any material contained in or suggested by the Practice.

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DATA SHEET

RESP005D-D

SEALLESS CENTRIFUGAL PUMPS (US CUSTOMARY UNITS)

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JANUARY 2017

ISSUED FOR: _____ PROPOSAL _____ PURCHASE _____ AS BUILT _____

FACILITY NAME/LOCATION: _____

ITEM NAME: _____ PURCHASER/LOCATION: _____

ITEM TAG NO.: _____ JOB NO.: _____

SERVICE: _____ PURCHASER ORDER NO.: _____

UNIT: _____ SUPPLIER/LOCATION: _____

P&ID NO.: _____ SUPPLIER ORDER/SERIAL NOS.: _____ / _____

DATA PROVIDED BY: PURCHASER SUPPLIER SUPPLIER IF NOT BY PURCHASER

● GENERAL

NO. REQ.: _____ ◆ PUMP SIZE: _____ ◆ TYPE: _____

NUMBER MOTOR DRIVEN: _____ NUMBER TURBINE DRIVEN: _____

MOTOR ITEM NUMBER: _____ TURBINE ITEM NUMBER: _____ GEARBOX ITEM NUMBER: _____

MOTOR PROVIDED BY: _____ TURBINE PROVIDED BY: _____ GEARBOX PROVIDED BY: _____

MOTOR MOUNTED BY: _____ TURBINE MOUNTED BY: _____ GEARBOX MOUNTED BY: _____

● OPERATING CONDITIONS

	RATED	MAX.	NORMAL	MIN.	
CAPACITY:					GPM
SUCTION PRESSURE:					PSIG
DISCHARGE PRESSURE:					PSIG
DIFFERENTIAL PRESSURE:					PSI
DIFFERENTIAL HEAD:					FT @ MINIMUM S.G.
HYDRAULIC POWER AT DESIGNATED CAPACITY:					HP @ MAX S.G. AND VISCOSITY
OPERATING TIME:					%
NPSH AVAILABLE:					FT

SYSTEM DESIGN:

STAND ALONE OPERATION PARALLEL OPERATION

SERIES OPERATION WITH ITEM NUMBER: _____

SERVICE:

CONTINUOUS INTERMITTENT: _____ STARTS/DAY

SYSTEM CONTROL METHOD:

SPEED FLOW LEVEL TEMPERATURE

PRESSURE PIPE FRICTION RESISTANCE ONLY

■ PERFORMANCE

PERFORMANCE CURVE NO.: _____

MEASURED AT CAPACITY:

	RATED	MAX.	NORMAL	MIN.	
ROTOR:					RPM
IMPELLER DIAMETER:					IN
NPSH REQ'D:					FT
EFFICIENCY:					%
HYDRAULIC:					BHP
MAGNETIC:					BHP
TOTAL:					BHP

SUCTION SPECIFIC SPEED: _____

BEST EFFICIENCY POINT FOR RATED IMPELLER: _____ GPM

MINIMUM CONTINUOUS FLOW WITHOUT EXTERNAL FLUSHING:

 THERMAL: _____ GPM HYDRAULIC STABILITY: _____ GPM

MINIMUM CONTINUOUS FLOW WITH EXTERNAL FLUSHING:

 THERMAL: _____ GPM HYDRAULIC STABILITY: _____ GPM

MAX. DIFFERENTIAL HEAD @ RATED IMPELLER: _____ FT

● PUMPED FLUID

PUMPED FLUID: _____

	RATED	MAX.	NORMAL	MIN.	
PUMPING TEMP.:					°F
AT DESIGNATED TEMP.:					
SPECIFIC GRAVITY:					
VAPOR PRESSURE:					PSIA
VISCOSITY:					CP
SPECIFIC HEAT:					BTU/LB°F

VAPOR PRESSURE VS TEMPERATURE CURVE PROVIDED

LIQUID: HAZARDOUS FLAMMABLE

CORROSIVE / EROSIIVE AGENT: _____

CHLORIDE CONCENTRATION: _____ PPM

H₂S CONCENTRATION: _____ PPM

OTHER: _____

% SOLIDS: _____ MAX. PARTICLE SIZE: _____ IN

● SITE CONDITIONS

LOCATION:

INDOOR HEATED UNDER ROOF

OUTDOOR UNHEATED PARTIAL SIDES

ALTITUDE: _____ FT

RANGE OF AMBIENT TEMPS. MIN./MAX.: _____ / _____ °F

ELECTRICAL CLASSIFICATION:

CL.: _____ GR.: _____ DIV.: _____

NON HAZARDOUS TEMP. CODE: _____

● GENERAL REMARKS

NO.	DATE	REVISION DESCRIPTION	BY	APVD.