

NOTES:
ALL DIMENSIONS ARE ± 1/8" UNLESS OTHERWISE SPECIFIED.

PARTS LIST		DESCRIPTION
KEY	ITEM	DESCRIPTION
1	INET	3" LUG STYLE IRON BUTTERFLY VALVE (SHIPPED LOOSE)
2	STRAINER	3" FLAT FACE FLANGE CAST IRON BASKET STRAINER WITH STAINLESS STEEL BASKET
3	PUMP	SCOT PUMP: MP 481 - 4.75-2.5x2.0 160 GPM @ 40 TDH 2HP TEFC
4	SKID	CARBON STEEL SKID WITH ZINC RICH EPOXY PRIMER AND EPOXY TOP COAT
5	CONTROL PANEL	NEMA 4X ENCLOSURE MAIN POWER DISCONNECT SWITCH MAIN POWER LED INDICATOOR PUMP H-O-A SWITCH PUMP RUNNING LED INDICATOR ALARM LED INDICATOR 460VAC-120VAC TRANSFORMER MOTOR CONTACTOR & OVERLOAD ADJUSTABLE DIFFERENTIAL PRESSURE SWITCH REMOTE START/STOP TERMINALS (24VDC) ALARM OUTPUT TERMINALS (DRY 3A MAX)
6	SEPARATOR	XFT-0250 FLOW RATE @ 4 PSID: 129 GPM FLOW RATE @ 12 PSID: 224 GPM
7	RECOVERY TANK	304SS RECOVERY TANK W/ 25 MICRON BAG - RT#2
8	DISCHARGE	2-1/2" LUG STYLE IRON BUTTERFLY VALVE (SHIPPED LOOSE)
DRAWN RB		6/14/2021
CHECKED		
MATERIAL		
FINISH EPOXY ENAMEL		
MACHINED TOLERANCE: ± 0.005 INCHES		
FABRICATED TOLERANCE: ± 0.063 INCHES		
		J.L. WINGERT CO.
		JLW 160 GPM @ 40 TDH SEPARATOR SYSTEM WITH RECOVERY TANK, BASKET STRAINER, AND ISOLATION VALVES
SIZE	DWG NO	REV
	CT-0160-40-RT/BS-IV	
SCALE	0.08 : 1	SHEET 1 OF 1

Item number	: 001	Size	: Scot 481-4.75-2.5x2.0
Service	: 160GPM @ 40' TDH	Stages	: 1
Quantity	: 1	Based on curve number	: 40.000.803
Quote number	: 29673	Article Number	:
		Date last saved	: 11 Jun 2021 11:50 AM

Operating Conditions

Flow, rated	: 160.0 USgpm
Head, rated (requested)	: 40.00 ft
Head, rated (actual)	: 40.00 ft
Suction pressure, rated / max	: 0.00 / 0.00 psi.g
NPSH available	: Ample
Site Supply Frequency	: 60 Hz

Performance

Speed criteria	: Synchronous
Speed	: 3500 rpm
Impeller dia.	: 3.75 in
Impeller diameter, maximum	: 4.75 in
Impeller diameter, minimum	: 3.13 in
Efficiency	: 77.63 %
PEI (CL)	: 0.88
NPSH required / margin required	: 5.30 / 0.00 ft
Ns (imp. eye flow) / Nss (imp. eye flow)	: 1,833 / 11,081 US Units
MCSF	: -
Head max.	: 53.36 ft
Head rise to shutoff	: 17.12 %
Flow, best eff. point	: 137.7 USgpm
Flow ratio, rated / BEP	: 116.18 %
Diameter ratio (rated / max)	: 78.95 %
Head ratio (rated dia / max dia)	: 45.29 %
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, required / pump max	: 0.00 in / 0.00 in
Solids concentration, by volume	: 0.00 %
Temperature	: 68.00 deg F
Fluid density	: 1.000 / 1.000 SG
Viscosity	: 1.00 cP
Vapor pressure, rated	: 0.34 psi.a

Material

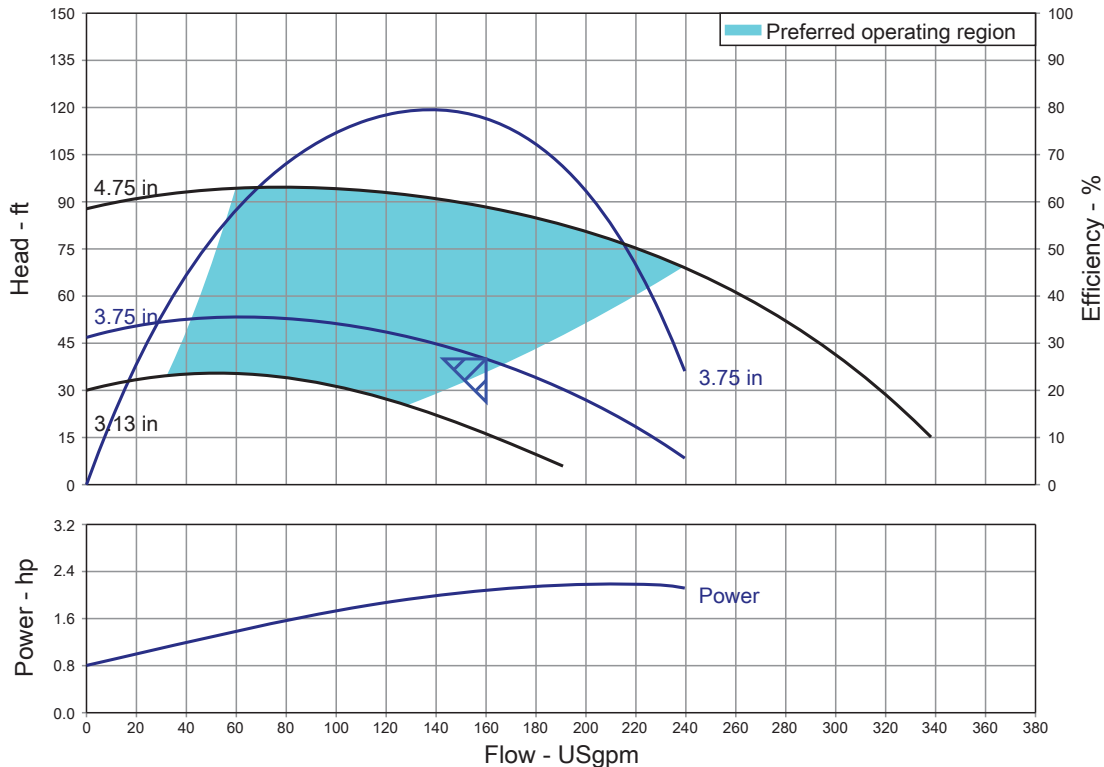
Material selected	: Standard
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Pressure Data

Maximum working pressure	: 23.09 psi.g
Maximum allowable working pressure	: - psi.g
Maximum allowable suction pressure	: N/A
Hydrostatic test pressure	: N/A

Driver & Power Data (@Max density)

Driver sizing specification	: Maximum power
Margin over specification	: 0.00 %
Service factor	: 1.15 (used)
Power, hydraulic	: 1.62 hp
Power, rated	: 2.08 hp
Power, maximum	: 2.19 hp
Motor rating	: 2.00 hp / 1.49 kW



Item number	: 001	Size	: Scot 481-4.75-2.5x2.0
Service	: 160GPM @ 40' TDH	Stages	: 1
Quantity	: 1	Speed	: 3500 rpm
Quote number	: 29673	Article Number	:
		Date last saved	: 11 Jun 2021 11:50 AM

Performance Data

Head, maximum diameter, rated flow	: 88.33 ft
Head, minimum diameter, rated flow	: 16.15 ft
Head max.	: 53.36 ft
Efficiency adjustment factor, total	: 1.00
Power adjustment, total	: 0.00 hp
Head adjustment factor, total	: 1.00
Flow adjustment factor, total	: 1.00
NPSHR adjustment factor, total	: 1.00
NPSH margin dictated by pump supplier	: 0.00 ft
NPSH margin dictated by user	: 0.00 ft
NPSH margin used (added to 'required' values)	: 0.00 ft

Mechanical Limits

Torque, rated power, rated speed	: 0.06 hp/100 rpm
Torque, maximum power, rated speed	: 0.06 hp/100 rpm
Torque, driver power, full load speed	: 0.06 hp/100 rpm
Torque, driver power, rated speed	: 0.06 hp/100 rpm
Torque, pump shaft limit	: -
Radial load, worst case	: -
Radial load limit	: -
Impeller peripheral speed, rated	: -
Impeller peripheral speed limit	: -

Various Performance Data

	Flow (USgpm)	Head (ft)	Efficiency (%)	NPSHr (ft)	Power (hp)
Shutoff, rated	0.00	46.85	-	-	0.80
Shutoff, maximum	0.00	87.78	-	-	1.94
MCSF	-	-	-	-	-
Rated flow, minimum	160.0	16.15	55.31	-	1.18
Rated flow, maximum	160.0	88.33	80.23	-	4.45
BEP flow, rated	137.7	45.27	79.53	4.50	1.98
120% rated flow, rated	192.0	29.94	66.87	6.90	2.17
End of curve, rated	239.6	8.44	24.08	10.44	2.12
End of curve, minimum	190.8	5.91	25.77	6.83	1.10
End of curve, maximum	338.2	15.15	24.48	23.20	5.28
Maximum value, rated	-	53.36	79.53	-	2.19
Maximum value, maximum	-	-	82.70	-	5.52

System differential pressure

Differential pressure, rated flow, rated (psi)	
Differential pressure, shutoff, rated (psi)	
Differential pressure, shutoff, maximum (psi)	

@ Density, rated

17.31
20.28
37.99

@ Density, max

17.31
20.28
37.99

Discharge pressure

Discharge pressure, rated flow, rated (psi.g)	
Discharge pressure, shutoff, rated (psi.g)	
Discharge pressure, shutoff, maximum (psi.g)	

@ Suction pressure, rated

17.31
20.28
37.99

@ Suction pressure, max

17.31
20.28
37.99

@ Suction pressure, rated

17.31
20.28
37.99

@ Suction pressure, max

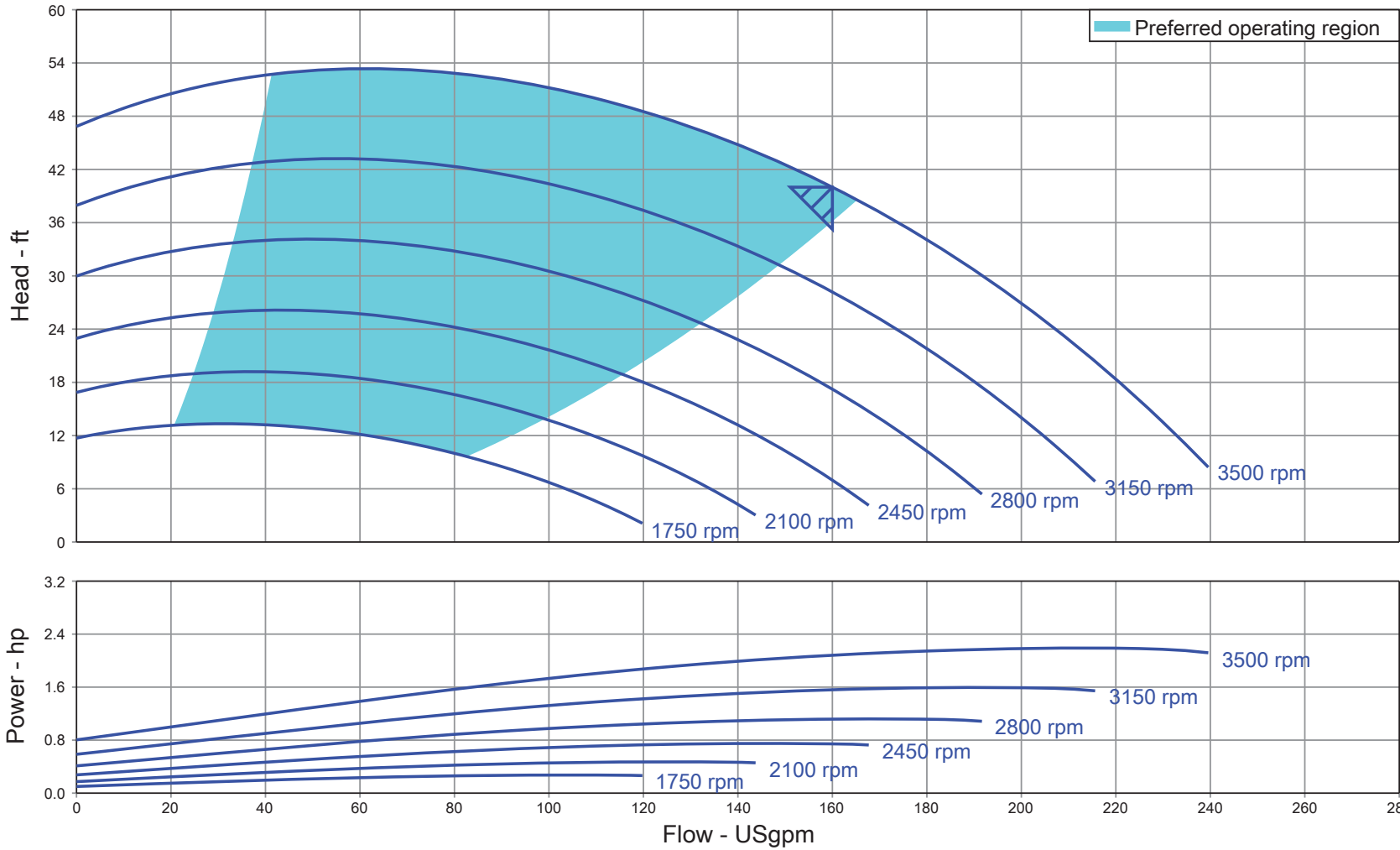
17.31
20.28
37.99

Ratios

Maximum flow / rated flow, rated	: 149.73 %	Head rated diameter / head minimum diameter, rated flow	: 247.72 %
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Construction

Motor Frame	: J56
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Item number	: 001	Size	: Scot 481-4.75-2.5x2.0	Flow, rated	: 160.0 USgpm
Service	: 160GPM @ 40' TDH	Stages	: 1	Head, rated	: 40.00 ft
Quantity	: 1	Efficiency	: 77.63 %	Speed	: 3500 rpm
Quote number	: 29673	PEI (VL)	: -	Impeller dia.	: 3.75 in
Based on curve number	: 40.000.803	Power, rated	: 2.08 hp	Fluid density	: 1.000 / 1.000 SG
Basic model number	: -	NPSH required	: 5.30 ft	Viscosity	: 1.00 cP
Date last saved	: 11 Jun 2021 11:50 AM	Site Supply Frequency	: 60 Hz	Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00
		Nominal speed	: 3500 rpm		