

Pump Performance Datasheet

Customer	:	Quote Number / ID	: 596697
Customer ref. / PO	:	Model	: NBS 030-070-2P
Tag Number	: 001	Stages	: 1
Service	:	Based on curve number	: 030-070-2P_Std
Quantity	: 1	Basic model number	: -
		Date last saved	: 05/12/2022 2:45 PM

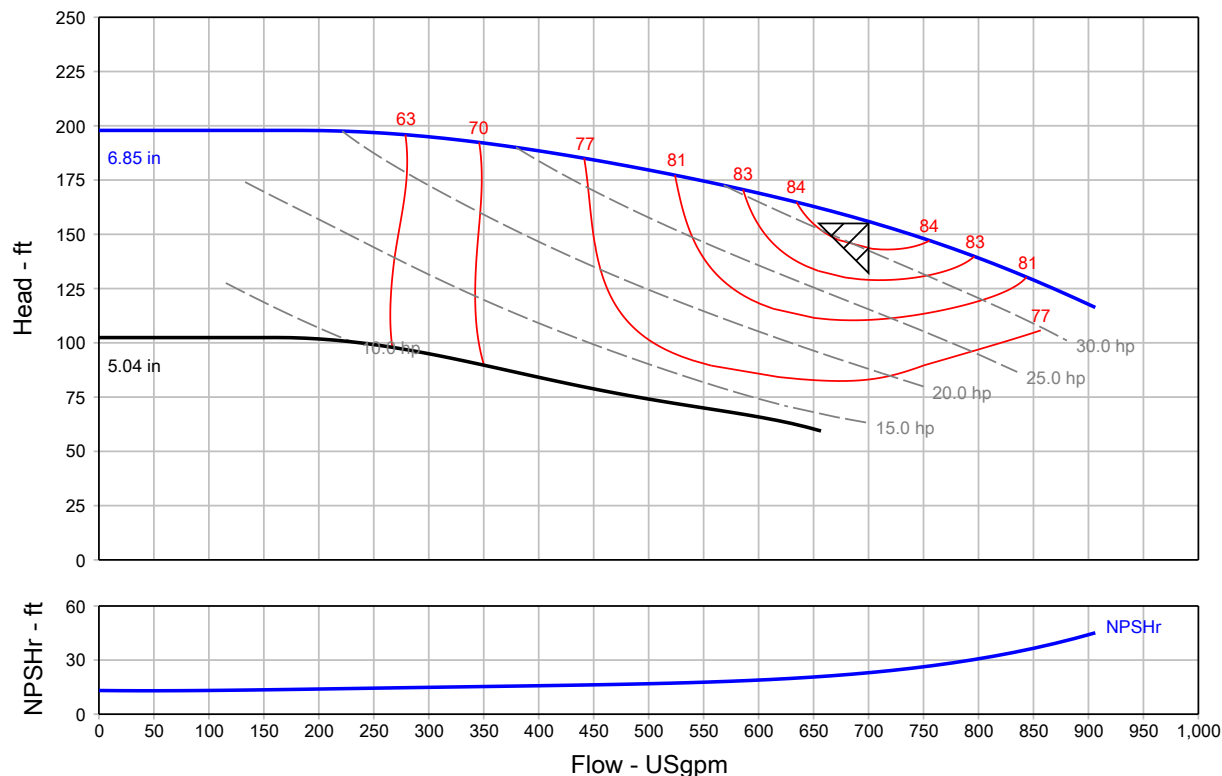
Operating Conditions		Liquid	
Flow, rated	: 700.0 USgpm	Liquid type	: Cold Water
Differential head / pressure, rated (requested)	: 155.0 ft	Additional liquid description	:
Differential head / pressure, rated (actual)	: 155.9 ft	Solids diameter, max	: 0.00 in
Suction pressure, rated / max	: 0.00 / 0.00 psi.g	Solids concentration, by volume	: 0.00 %
NPSH available, rated	: Ample	Temperature, max	: 68.00 deg F
Site Supply Frequency	: 60 Hz	Fluid density, rated / max	: 1.000 / 1.000 SG

Performance		Material	
Speed, rated	: 3500 rpm	Material selected	: Cast iron / 125 Class

Impeller diameter, rated	: 6.85 in	Pressure Data	
Impeller diameter, maximum	: 6.85 in		
Impeller diameter, minimum	: 5.04 in		
Efficiency	: 84.49 %		
NPSH required / margin required	: 22.98 / 0.00 ft		
nq (imp. eye flow) / S (imp. eye flow)	: 40 / 171 Metric units	Driver & Power Data (@Max density)	
MCSF	: 69.73 USgpm		
Head, maximum, rated diameter	: 197.9 ft		
Head rise to shutoff	: 26.90 %		
Flow, best eff. point	: 697.1 USgpm		

Flow ratio, rated / BEP	: 100.42 %	Motor sizing specification	: Max power (non-overloading)
Diameter ratio (rated / max)	: 100.00 %	Margin over specification	: 0.00 %
Head ratio (rated dia / max dia)	: 100.00 %	Service factor	: 1.15 (used)
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00	Power, hydraulic	: 27.55 hp
Selection status	: Acceptable	Rated power (based on duty point)	: 32.61 hp
		Max power (non-overloading)	: 34.70 hp
		Nameplate motor rating	: 40.00 hp / 29.83 kW

Energy Indexes	
PEI (CL)	: 0.92
ER (CL)	: 8



Construction Datasheet

Project name	Default	Tag Number	001
Consulting engineer		Service	
Customer		Model	NBS 030-070-2P
Customer ref. / PO		Quantity	1
Quote Number / ID	596697	Quoted By (Sales Office)	PFC EQUIPMENT INC
Date last saved	05/12/2022 2:45 PM	Quoted By (Sales Engineer)	Kelly Kresa

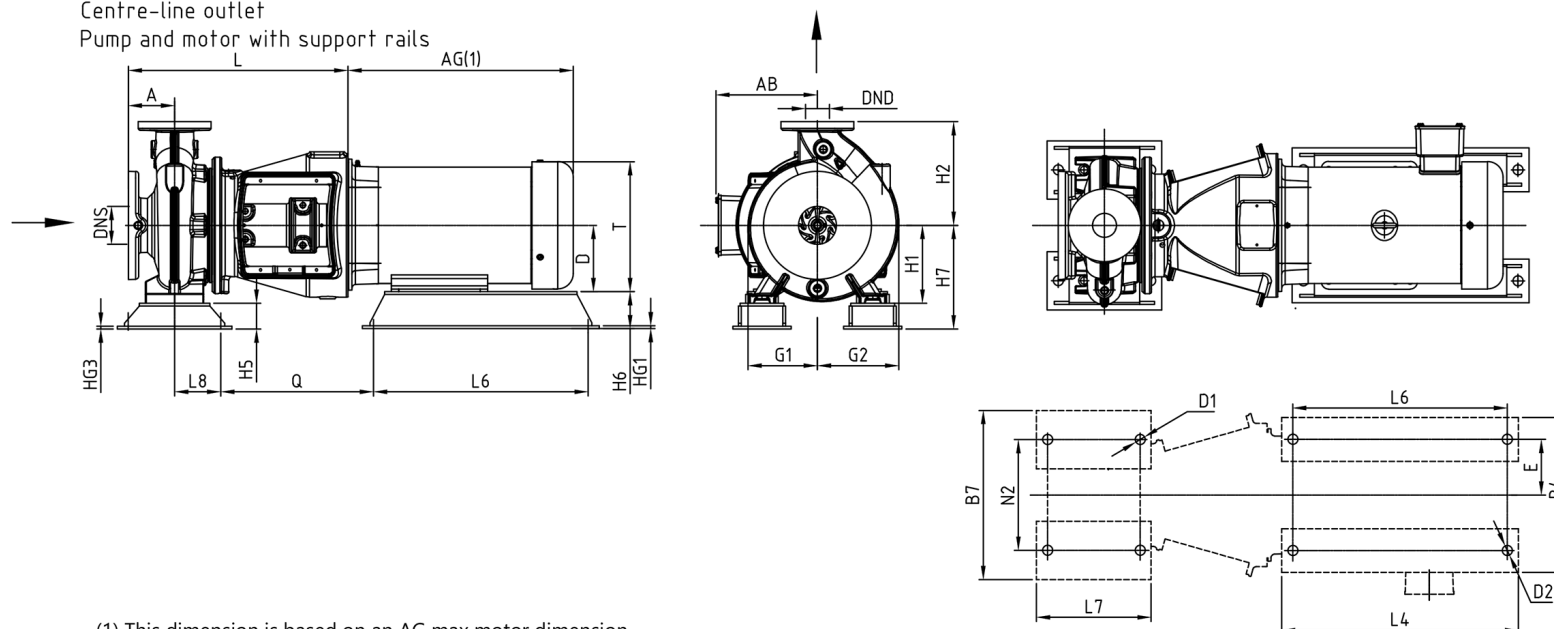
Construction Code : NBS 030-070/6.85AASG6S5ESBQQERX2

Construction		Motor Information	
Product Family	NBS_Std	Manufacturer	Baldor
Suction Size	4 in.	Frame Size	324TSC
Discharge Size	3 in.	Power	40 HP
Flange Rating	Class 125	RPM	3600
Orientation	Horizontal	Enclosure	TEFC
Rotation	Clockwise	Operating Power Supply	230/460/3/60
Pump Housing	Cast Iron, ASTM A48 - Class 35	Efficiency	Premium
O-Ring	EPDM	Service Factor	1.15
Plug	Galvanized	Motor Application	General Purpose
Impeller	Stainless Steel, AISI-304 / EN 1.430	Weight (Approx.)	
Impeller Nut	Duplex Stainless Steel, SAF 2205	Pump	241.0 lb
Shaft	Duplex Stainless Steel, SAF 2205	Support Rail	50.00 lb
Cover	Ductile Cast Iron, ASTM 70-50-05	Base Plate	-
Seal Type	Rubber bellows seal	Driver	546.0 lb
Shaft Seal	BQQE - Silicon carbide / Silicon carbide / EPDM	Estimated Shipping Gross Weight	837.0 lb
Seal Cap	Ductile Cast Iron, ASTM 70-50-05		
Motor Stool	Gray Cast Iron, ASTM Class 30		
Recirculation Line	None		
Coupling	Rigid, Axial Split Coupling (aluminum)		
Support Rail	Support Rail		

General Arrangement

Project name	: Default	Tag Number	: 001
Consulting engineer	:	Service	:
Customer	:	Model	: NBS 030-070-2P
Customer ref. / PO	:	Quantity of pumps	: 1
Quote Number / ID	: 596697	Quoted By (Sales Office)	: PFC EQUIPMENT INC
Date last saved	: 05/12/2022 2:45 PM	Quoted By (Sales Engineer)	: Kelly Kresa

Mounting design C
Centre-line outlet
Pump and motor with support rails

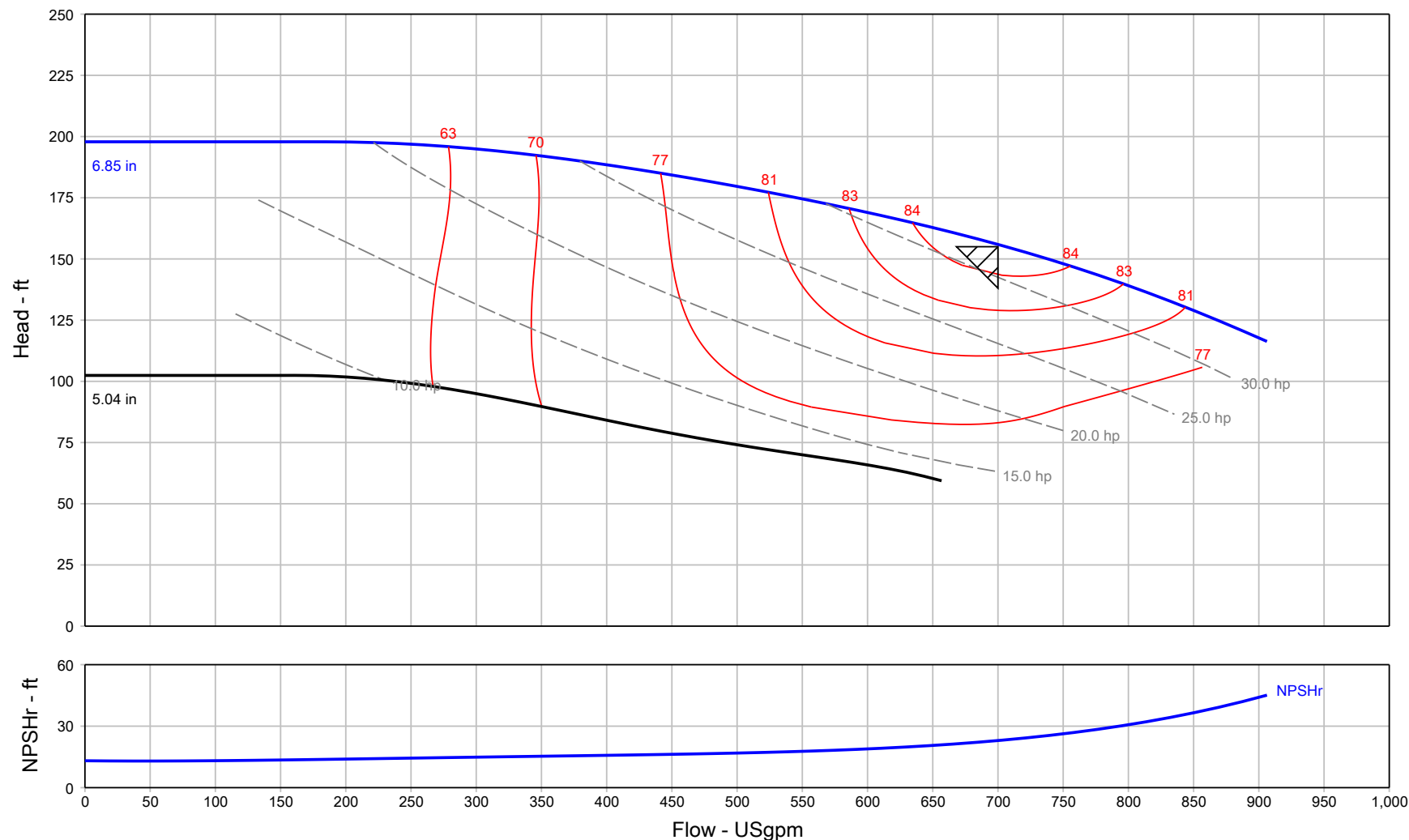


(1) This dimension is based on an AG max motor dimension

NOT FOR CONSTRUCTION, UNLESS CERTIFIED AND REFERENCED ON ORDER

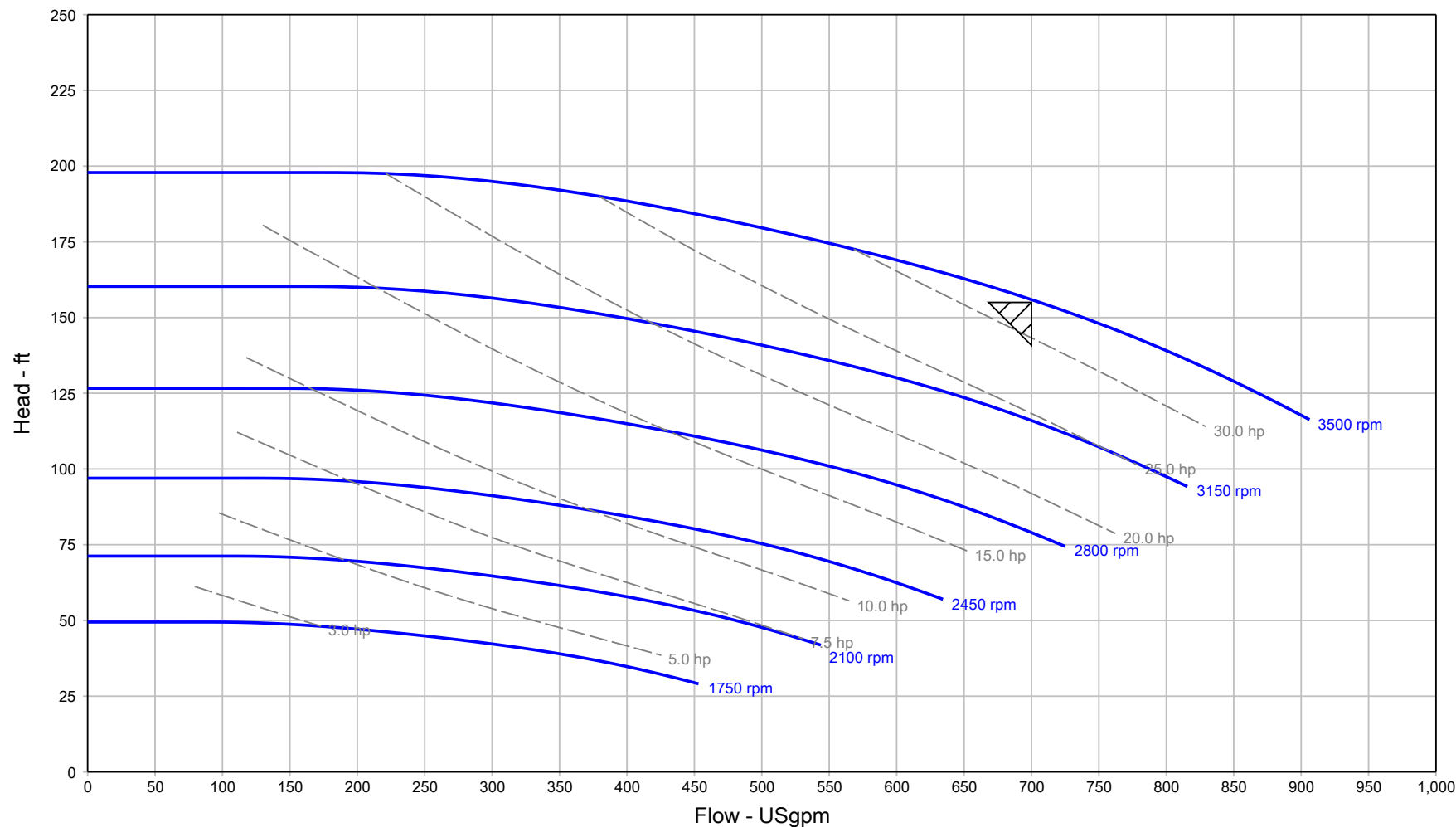
Units	Frame	DNS	DND	Class	A	AB	AG	B4	B7	D	D1	D2	E	G1	G2	H1	H2	H5	H6	H7	HG1	HG3	L	L4	L6	L7	L8	N2	Q	T	Weight
inches	324TSC	4	3	125	4.00	14.13	25.50	15.45	12.28	8.00	0.69	0.69	6.25	5.30	6.50	6.25	9.00	2.75	1.00	9.00	0.50	0.20	16.34	23.50	22.00	9.00	3.75	8.35	11.38	16.50	837.0
Conditions of Service									Motor Data																						
Flow: 700.0 USgpm				Fluid: Cold Water				HP: 40				Encl: TEFC				Phase: 3				Efficiency: Premium											
TDH: 155.0 ft				Temp.: 68.00 deg F				RPM: 3500 rpm				Hz: 60				Voltage: 230/460				S.F.: 1.15											

Pump Performance Curve



Project name	: Default	Tag Number	: 001	Flow, rated	: 700.0 USGpm
Consulting engineer	:	Service	:	Differential head / pressure, rated	: 155.0 ft
Customer	:	Model	: NBS 030-070-2P	Rated power (based on duty point)	: 32.61 hp
Customer ref. / PO	:	Quantity	: 1	Max power (non-overloading)	: 34.70 hp
Quote Number / ID	: 596697	Quoted By (Sales Office)	: PFC EQUIPMENT INC	Efficiency	: 84.49 %
Date last saved	: 05/12/2022 2:45 PM	Quoted By (Sales Engineer)	: Kelly Kresa	Impeller diameter, rated	: 6.85 in
Based on curve number	: 030-070-2P_Std	Stages	: 1	PEI (CL)	: 0.92
		Speed, rated	: 3500 rpm	ER (CL)	: 8

Multi-Speed Performance Curve



Project name	: Default	Tag Number	: 001	Speed, rated	: 3500 rpm
Consulting engineer	:	Service	:	Flow, rated	: 700.0 USgpm
Customer	:	Model	: NBS 030-070-2P	Differential head / pressure, rated	: 155.0 ft
Customer ref. / PO	:	Quantity	: 1	Fluid density, rated / max	: 1.000 / 1.000 SG
Quote Number / ID	: 596697	Quoted By (Sales Office)	: PFC EQUIPMENT INC	Viscosity	: 1.00 cP
Date last saved	: 05/12/2022 2:45 PM	Quoted By (Sales Engineer)	: Kelly Kresa	Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00
		Stages	: 1	Based on curve number	: 030-070-2P_Std