

<b>Client</b> <b>Project</b> <b>Unit</b> <b>Location</b>	NIS A.D. Novi Sad Kalkulacija 60FQIT-25M			<b>3051SFC COMPACT</b> <b>ORIFICE FLOWMETER</b>  <b>Specification</b>			Sheet		of	
							Spec No.		Rev.	
							Contract		P.O.	
							Req.		BY	
							CHK'D		APPR.	
GENERAL	1	Tag No.	60FQIT-25M							
	2	Description of Service	MERENJE I REGULACIJA PROTOKA LUZINE							
	3	PID No.   Line Number								
PROCESS CONDITIONS			Minimum	Normal	Maximum	Full Scale	Unit			
	4	Flow Rates	12000.000	19000.000	30000.000	37000.000	kg/hr			
	5	Pressure	10	15	16	17.000	bar-g			
	6	Temperature	20.00	25.00	30.00	35.00	C			
FLUID DATA	7	Fluid name	LUZINA							
	8	Fluid State	Liquid							
	9	Density @ Operating  @Base	1200.00000 kg/m3							
	10	Specific Gravity @Operating  @Base								
	11	Molecular Weight								
	12	Operating Viscosity	0.10000 centistokes							
	13	Isentropic Exponent								
	14	Compressibility @Operating  @Base								
	15	Vapor Pressure	psia							
	16	Maximum Permanent Pressure loss	89.737	mbar						
	17	Base Pressure   Base Temperature								
	18	Atmospheric Pressure	14.696	psia						
Differential Pressure			Minimum	Normal	Maximum	Full Scale	Unit			
	19	Differential Pressure	25.485	64.080	160.151	243.849	mbar			
ORIFICE FLANGE & FITTING	20									
	21	Flange Type Rating Material								
	22	Connection Nominal Size								
	23	Connection Style	Horizontal							
ORIFICE PLATE	24	Tap Size  Tap Orientation								
	25	Plate Type	Square Edged							
	26	Beta ratio d/D	0.650							
	27	Orifice Bore	0.997 inch							
	28	Plate Outside diameter								
METER TUBE	29	Plate Thickness Plate Material	316 SST							
	30	Line Size	3 in (80 mm)							
	31	Pipe Schedule  Pipe Material I.D	40	Carbon Steel	3.068					
	32	Mounting Bolt Length								
	33	Remote Adapters								
	34	Bolts								
OPTIONS	35	Wetted Materials								
	36	Cleaning								
	37	Material Traceability								
	38	Bore Calculation Sheet								
	39	Special Bore								
	40	Manufacturer	Rosemount							
	41	Model Number								
NOTES	42									
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This report is provided according to the terms and conditions of the Instrument Toolkit(TM) End-Use Customer License Agreement.

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**ROSEMOUNT INC.**  
**3051SFC COMPACT ORIFICE FLOWMETER**  
**CALCULATION DATA SHEET**



**GENERAL DATA**

Customer: NIS A.D. Novi Sad  
 Project: Kalkulacija 60FQIT-25M  
 S. O. No:  
 P. O. No:  
 Calc. Date:  
 Model No:  
 Tag No: 60FQIT-25M

**PRODUCT DESCRIPTION**

Bore Type:		Tap Type:	
Nominal Beta:	0.65	Tap Location:	
Plate Type:	Conditioning Orifice Plate	Line Size:	3 in (80 mm)
Plate Material:	316 SST	Pipe Schedule:	40
Meter Schedule:		Pipe Material:	Carbon Steel
Process Connection:			

**INPUT DATA**

Fluid Type:	Custom	Liquid	Calibration Factor (Fc):	1.0000
Fluid Name:		LUZINA		
Pipe I.D.:		3.068 inch	Base Pressure:	
Pressure at Flow:		15.000 bar-g	Base Temperature:	
Temperature at Flow:		25.00 C		
Absolute Viscosity:		0.10000 centistokes		
Isentropic Exponent:			Base Density:	
Compressibility at Flow:			Atmospheric Pressure:	14.696 psia
Density at Flow:		1200.0000 kg/m3		
Flow Rates:				
Minimum:		12000.00 kg/hr		
Normal:		19000.00 kg/hr		
Maximum:		30000.00 kg/hr		
Full Scale:		37000.00 kg/hr		

**CALCULATED DATA**

(Calculation Performed at Normal Conditions.)

Typical Orifice Hole Size:	0.997 inch	Pipe Reynolds Number (Normal):	718567
Calculated Orifice Bore Size:	1.994 inch	Gas Expansion Factor:	1.0000
DP at Min Flow:	25.485 mBar	Permanent Pressure Loss	
DP at Normal Flow:	64.080 mBar	at Normal Flow:	35.88 mBar
DP at Max Flow:	160.151 mBar	at Max Flow:	89.74 mBar
URV (DP at Full Scale):	243.849 mBar	Velocity at Max Flow:	1.46 m/sec
Beta:	0.6499		
Discharge Coefficient:	0.6054		
Pipe Sch Adjustment Factor:	1.000		

Pipe ID (thermally corrected)	3.068 inch	Bore Size (thermally corrected)	1.994 inch
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**GUIDELINES**

Primary Element Min Limit of Use	1893.67 kg/hr	Min Recommended Pipe Reynolds:	5000.0
Max. Allow. Pressure @ Temp:	17.0 bar-g	35.00 C	Recommended Min DP:
Design Pressure/Temperature:	17.000 bar-g	35.000 C	Max. Allow. Temp.:
			232.222 C

**WARNINGS**

**NOTES**