



Hygood Novec 1230 FlowCalc HYG3.60
UL: EX6466 FM: 3014140
File Name: servery_6.FLC

Consolidated Report

Enclosure Information

Elevation: 0 m (relative to sea level)
Atmospheric Correction Factor: 1

Enclosure Number:	1
Name:	strefa wlasciwa
Enclosure Temperature...	
Minimum:	18,0 C
Maximum:	18,0 C
Maximum Concentration:	5,323 %
Design Concentration...	
Adjusted:	5,322 %
Minimum:	5,300 %
Minimum Agent Required:	92,6 kg
Width:	0,00 m
Length:	0,00 m
Height:	0,00 m

Volume:	118,00 cubic m
Non-permeable:	0,00 cubic m

Total Volume:	118,00 cubic m
Adjusted Agent Required:	93,0 kg
Number of Nozzles:	1



Consolidated Report Enclosure Information

Elevation: 0 m (relative to sea level)
Atmospheric Correction Factor: 1

Enclosure Number:	2
Name:	podloga techniczna
Enclosure Temperature...	
Minimum:	18,0 C
Maximum:	18,0 C
Maximum Concentration:	5,325 %
Design Concentration...	
Adjusted:	5,300 %
Minimum:	5,300 %
Minimum Agent Required:	11,0 kg
Width:	0,00 m
Length:	0,00 m
Height:	0,00 m
Volume:	13,95 cubic m
Non-permeable:	0,00 cubic m
Total Volume:	13,95 cubic m
Adjusted Agent Required:	11,0 kg
Number of Nozzles:	1



Consolidated Report Agent Information

Agent: Novec / Propellant N2
(Novec is a trademark of 3M)

Adjusted Agent Required: 104,0 kg
Container Name: 147L Cylinder Assembly
Container Part Number: 16378
Number of Main Containers: 1
Number of Reserve Containers: 0
Manifold: No Manifold

Starting Pressure: 24,8 bar
Pipe Take Off Direction: Horizontal
Agent Per Container: 104,0 kg
Fill Density: 0,708 kg / l
Container Empty Weight: 89,9 kg
Weight, All Containers + Agent: 193,9 kg
Floor Area Per Container: 0,13 square m
Floor Loading Per Container: 1503 kg /square m

Pipe Network

Part 1 - Pipe

Description	Start	End	Type	Diameter	Pipe Length	Elevation
Main Cyl. X 1	0	1		50 mm	1,35 m	1,35 m
Flex Hose	1	2		50 mm	0,12 m	0,00 m
Flex Hose	2	3		50 mm	0,52 m	0,52 m
Pipe	3	4	40T	40 mm	0,28 m	0,28 m
Pipe	4	5	40T	40 mm	1,90 m	0,00 m
Pipe	5	6	40T	40 mm	0,25 m	0,25 m
Pipe	6	7	40T	40 mm	4,40 m	0,00 m
Pipe	7	8	40T	40 mm	0,40 m	0,00 m
Pipe	8	9	40T	40 mm	1,00 m	0,00 m
Pipe/E1-N1	9	10	40T	40 mm	0,05 m	-0,05 m
Pipe	7	11	40T	20 mm	1,90 m	0,00 m
Pipe/E2-N1	11	12	40T	20 mm	2,55 m	-2,55 m



Consolidated Report

Part 2 - Equivalent Length

Start	End	90	45	Thru	Side	Union	Other	Added	Total
0	1	0	0	0	0	0		0,00 m	10,67 m
1	2	0	0	0	0	0	50mmFlexN1	0,00 m	0,12 m
2	3	1	0	0	0	0	50mmFlexN2	0,00 m	5,25 m
3	4	0	0	0	0	0		0,00 m	0,27 m
4	5	1	0	0	0	0		0,00 m	3,20 m
5	6	1	0	0	0	0		0,00 m	1,55 m
6	7	1	0	0	0	0		0,00 m	5,70 m
7	8	0	0	1	0	0		0,00 m	1,22 m
8	9	1	0	0	0	0		0,00 m	2,32 m
9	10	1	0	0	0	0		0,00 m	1,37 m
7	11	0	0	0	1	0		0,00 m	3,26 m
11	12	1	0	0	0	0		0,00 m	3,23 m

Part 3 - Nozzles

Start	End	Flow	Name	Size	Type	Nozzle Area
0	1	104,0 kg				
1	2	104,0 kg				
2	3	104,0 kg				
3	4	104,0 kg				
4	5	104,0 kg				
5	6	104,0 kg				
6	7	104,0 kg				
7	8	93,0 kg				
8	9	93,0 kg				
9	10	93,0 kg	E1-N1	40 mm	16 Port - AL	598,28 square mm
7	11	11,0 kg				
11	12	11,0 kg	E2-N1	20 mm	7 Port - AL	79,39 square mm

Parts Information

Total Agent Required: 104,0 kg
Container Name: 147L Cylinder Assembly (Part: 16378)
Number Of Containers: 1
Field1

Nozzle	Type	Diameter	Nozzle Area	Part Number
E1-N1	16 Port - AL	40 mm	598,28 square mm	16446

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Nozzle	Type	Diameter	Nozzle Area	Part Number
E2-N1	7 Port - AL	20 mm	79,39 square mm	16439

Nozzle	Drill Diameter	Drill Size
E1-N1	6,9000 mm	6.90 mm
E2-N1	3,8000 mm	3.80 mm

Pipe:	Type	Diameter	Length
	40T	20 mm	4,45 m
	40T	40 mm	8,28 m

'Other' Items:

1 - 50 mm Flexible Discharge Hose (Part: 16411)

List of 90 degree elbows:

1 - 20 mm

5 - 40 mm

List of Tees:

1 - 40 mm

System Acceptance

System Discharge Time: 7,6 seconds

Percent Agent In Pipe: 25,8%

Percent Agent Before First Tee: 20,5%

Enclosure Number: 1

Enclosure Name: strefa wlasciwa

Minimum Design Concentration: 5,300%

Adjusted Design Concentration: 5,322%

Predicted Concentration: 5,324%

Maximum Expected Agent Concentration: 5,324% (At 18,0 C)

Nozzle	Minimum Agent Required	Adjusted Agent Required	Predicted Agent Delivered	Nozzle Pressure (Average)
E1-N1	92,6 kg	93,0 kg	93,0 kg	9,473 bar

Enclosure Number: 2

Enclosure Name: podloga techniczna

Minimum Design Concentration: 5,300%

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Adjusted Design Concentration: 5,300%

Predicted Concentration: 5,315%

Maximum Expected Agent Concentration: 5,315% (At 18,0 C)

Nozzle	Minimum Agent Required	Adjusted Agent Required	Predicted Agent Delivered	Nozzle Pressure (Average)
E2-N1	11,0 kg	11,0 kg	11,0 kg	9,261 bar

Drawing View: 1

