

Product school – Nelprof on/off Sizing

Welcome and thank you for attending this session

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Nelprof On/Off

https://valveproducts.neles.com/download/nelprof

Neles Valve Sizing & Selection Software Nelprof[™] 6.3

Neles valves and automated assemblies improve performance, maximize uptime, and decrease costs. And our valve sizing and selection software, Nelprof 6.3, assures you select the right configuration for the job.

Nelprof 6.3 powerful control valve selection features include:

- Safety valve optimization
- Control valve selection with performance analysis
- Fast and reliable on/off valve selection
- Optimization of safety-critical system components

Get the valves that are reliable today, tomorrow, and every day.

Download your free copy of Nelprof 6.3 today and see for yourself the difference Neles can make. Download size: 86 Mb

Reliability lives at Neles.



• You can download Nelprof online at the link above.

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• If you have issues with the download, please contact me for assistance.

In session features

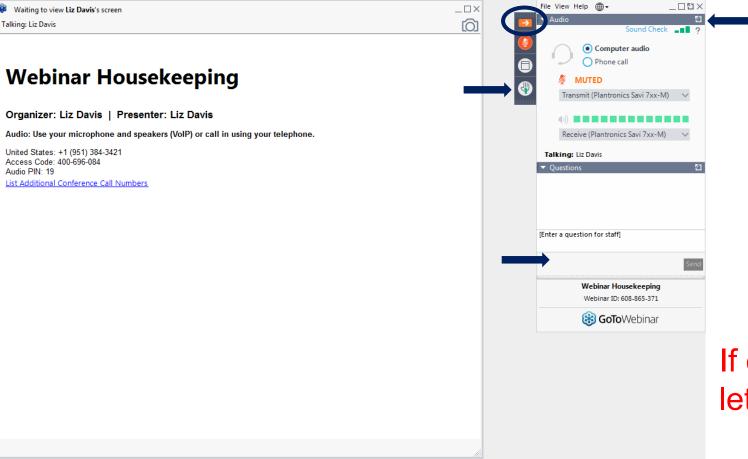
😵 Waiting to view Liz Davis's screen

United States: +1 (951) 384-3421

List Additional Conference Call Numbers

Access Code: 400-696-084 Audio PIN: 19

Talking: Liz Davis





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If experiencing audio issues please let us know in question field.





Introductions

Presenter / Moderator / Panelist / Guest speaker

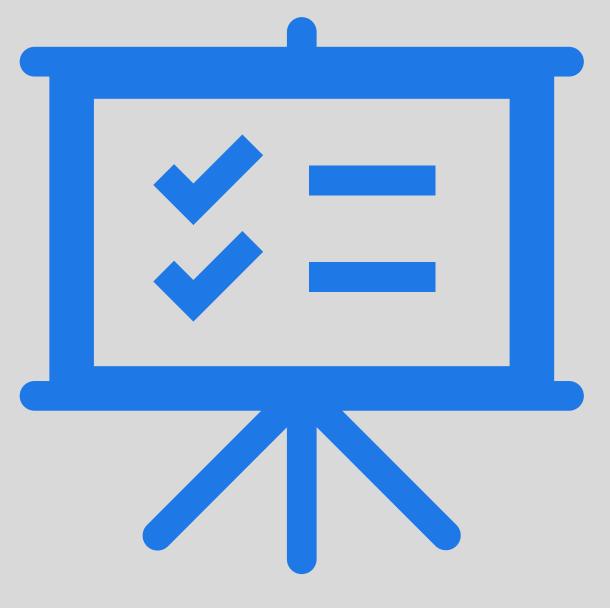
- Steven Hocurscak
- Control Valve Product Manager
- With the company for 15 years, predominately involved with control valves.



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Agenda

- Opening Nelprof / Initial Setup
- Different Components of Nelprof
- Tricks and Tips
- Information Needed to Size
- Sizing Examples
- Open / Save a File
- Print to PDF
- Contact Information



Nelprof On/Off What is Nelprof?

 Nelprof is a software that utilizes process conditions to properly provide the correct actuator / valve size.

- Nelprof is able to output torque values for specific valves and actuators under different ranges of pressure.
- Within Nelprof, we are able to perform an On/Off and or a Control Sizing.

Nelprof On/Off Opening Nelprof / Initial setup

User Identification Di	alog		×
You need to enter yo	ur e-mail address to use this program.		
It is used to identify y	our project files.		
N			
Your e-mail address	Steven.Hocurscak@neles.com		
		OK	Cancel
		UK	Cancer

 One of the first screens you will see when loading Nelprof is the "User Identification Dialog".

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• Enter your email address

Nelprof On/Off Opening Nelprof / Initial setup

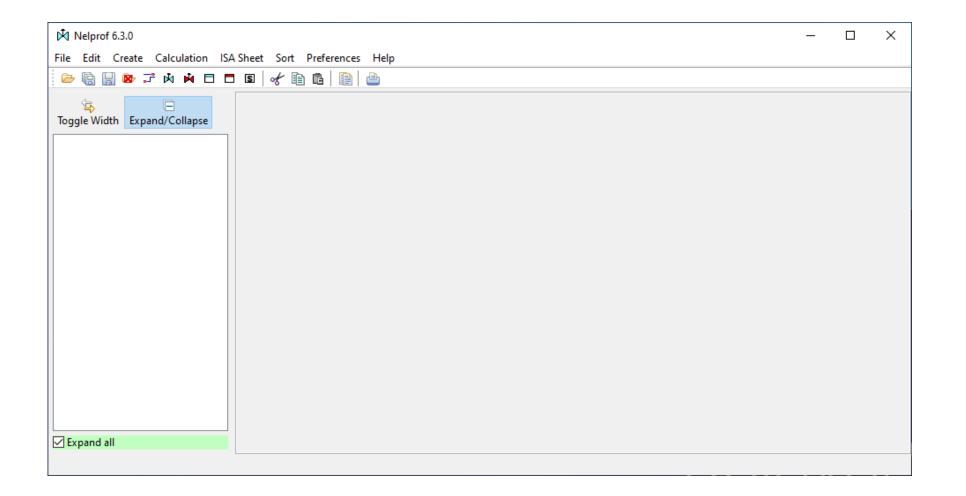
Nelprof 6.2.9

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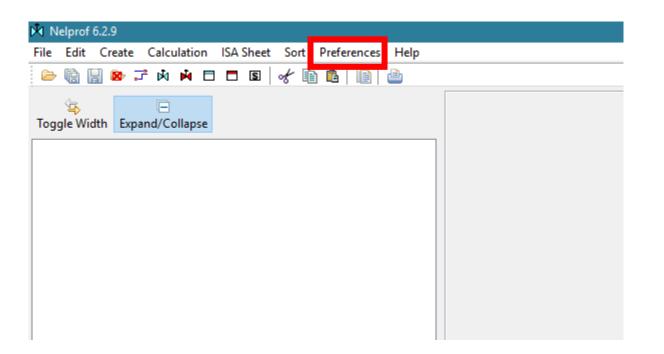
 By default, Nelprof is setup to open a new project at startup. If this screen opens up for you, just close it for the time being.

Nelprof On/Off

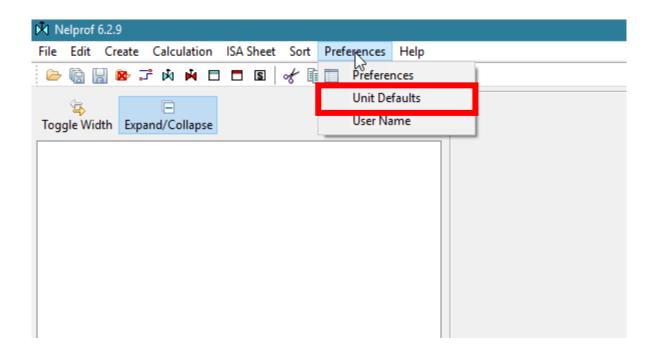
Opening Nelprof / Initial setup



Nelprof On/Off Opening Nelprof / initial setup (unit preferences)



Nelprof On/Off Opening Nelprof / initial setup (unit preferences)



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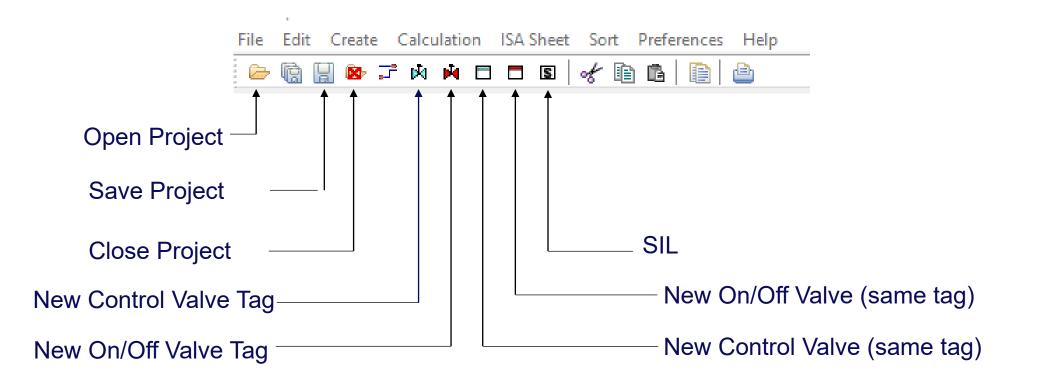
Nelprof On/Off Opening Nelprof / initial setup (unit preferences)

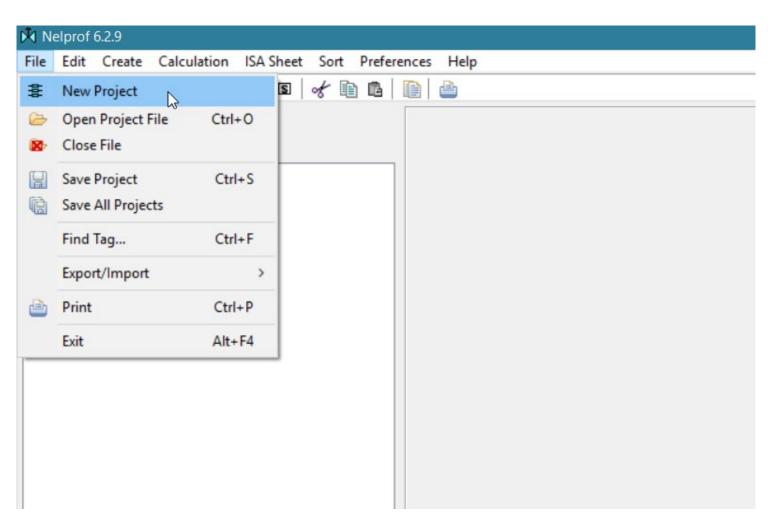
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Liquid flow rate	gpm	~		60 psiG ~
Gas flow rate	scfh	~		Medium Type
Steam flow rate	lb/h	~		Water 🗸
Temperature	degF	~		Mediun
Pressure	psiA	~		Sizing Type
Vapour pressure	psiA	~		On-off v
Shut-off pressure	psi	~		Safety factor
Liquid velocity	ft/s	~		1.2
Gas velocity	Mach	~		
Terminal DP	psi	~		
Valve size	in	~	J	

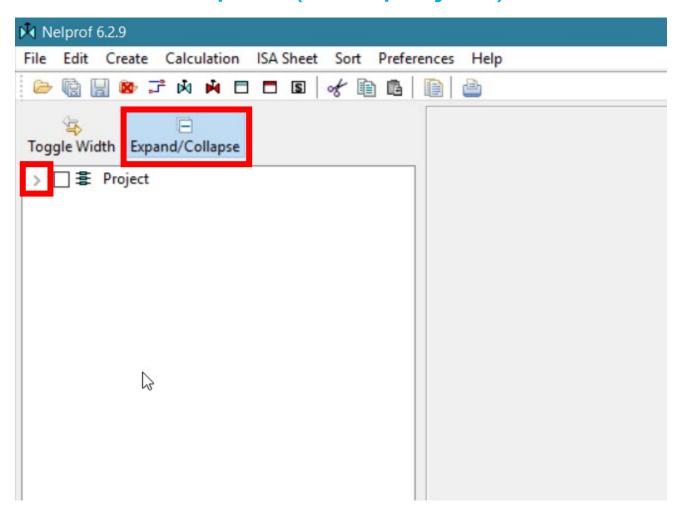
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Nelprof On/Off

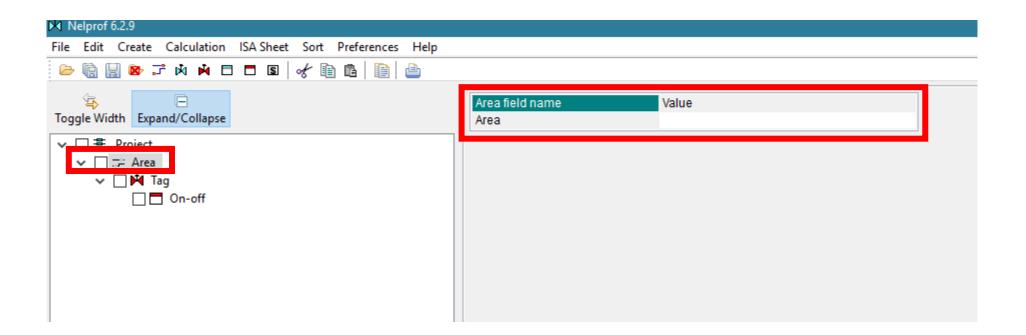
Opening Nelprof / Initial setup (Key items)

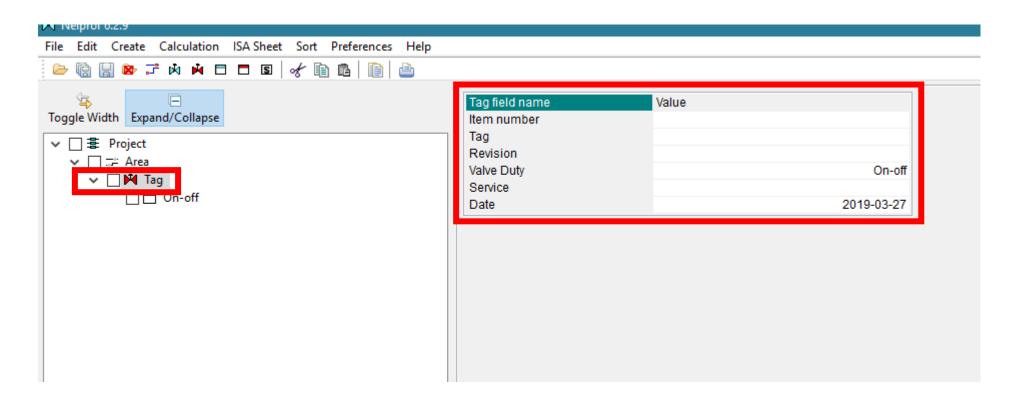


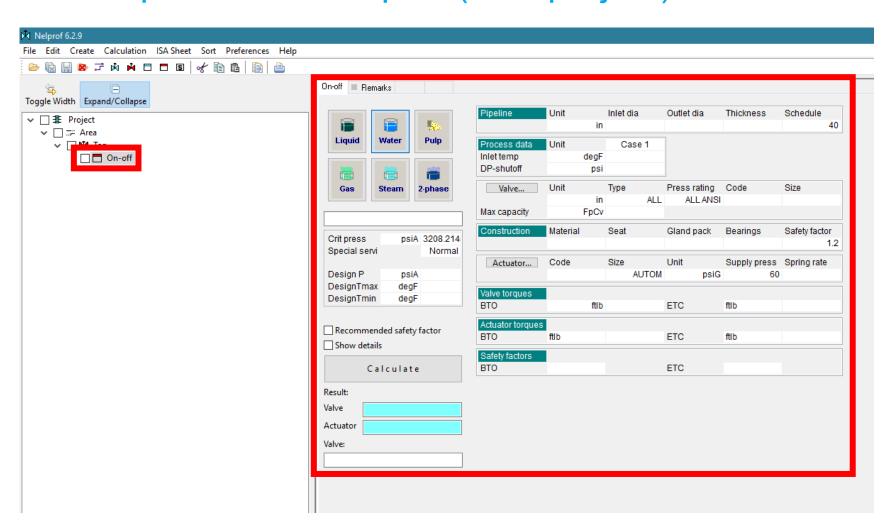




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		Metso reference	
		Metso contact	
		End customer	
		Invoice customer	
		Contractor name	
		Customer reference Creation date	2019-03-27
		Created by	joshua.ruiz@metso.com
		Remarks	joshda.ruiz@meiso.com
		*) Fill in at least Quotation Number	r or Project Name
		Project units and defaults (Note:	this project must be SAVED first!)
		Create Edit	Delete
		Tags: 1, Sizings: 1, Calculated: 0, N	OT Calculated: 1
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Nelprof On/Off Different components of Nelprof (On/Off breakdown)

Linit

Inlet dia

Outlot dia

Thickness Schodule

	8		N 2		Pip
Liquid	Water		Pulp		Pro Inle
eas Gas	e Stearr	2.	💼 phase		DP
				, 	Ма
Crit press Special ser		psiA (3208.2 Norm	_	Cor
Design P DesignTma		psiA legF			
DesignTmi	n d	legF			Valv BT(
Recomme Show deta			ctor		Actu BTC Saf BTC
Result:					
/alve					
Actuator					
/alve:					

	Onit		mere		Outlet ula	THICKIESS	ochedule
		in					40
Process data	Unit		Ca	ase 1]		
Inlet temp	d	egF					
DP-shutoff		psi					
Valve	Unit		Туре		Press rating	Code	Size
		in		ALL	ALL ANSI		
Max capacity	F	рСу					
Construction	Material		Seat		Gland pack	Bearings	Safety factor
							1.2
Actuator	Code		Size		Unit	Supply press	Spring rate
				AUTOM	psiG	60	
Valve torques							
BTO		ftlb			ETC	ftlb	
Actuator torques							
BTO	ftlb				ETC	ftlb	
Safety factors							
					ETC		
BTO							
BIO							
вю							
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вю							

Nelprof On/Off Different components of Nelprof (remarks)



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Nelprof On/Off Different components of Nelprof (media options)

		Pipeline	Unit	Inlet dia	Outlet dia	Thickness	Schedule 40
Liquid Water	Pulp	Process data Inlet temp DP-shutoff	Unit degF psi	Case 1			
	phase	Valve Max capacity	Unit in FpCv	Type ALL	Press rating ALL ANSI	Code	Size
Acetone		Construction	Material	Seat	Gland pack	Bearings	Safety factor 1.2
Acetylene Air Ammonia V		Actuator	Code	Size AUTOM	Unit psiG	Supply press 60	
Special servi Design P psiA	Normal	Valve torques BTO	ftib		ETC	ftib	
DesignTmax degF DesignTmin degF		Actuator torques BTO	ftib		ETC	ftlb	
Recommended safety fa	ctor	Safety factors BTO			ETC		
Calculate							
Result: Valve							
Actuator Valve:							

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Nelprof On/Off Different components of Nelprof (unit conversion)

	Pipeline	Unit	Inlet dia	Outlet dia	Thickness	Schedule
		in				4
Liquid Water Pulp	Process data	Linit	Case 1			
	Inlet temp	degF				
	DP-shutoff	degC degF				
Gas Steam 2-phase	Valve	K	pe	Press rating	Code	Size
	Max capacity	in FpCv	ALL	ALL ANSI		
				Olandaask	Descinge	Onfet feater
Crit press psiA 3208.214	Construction	Material	Seat	Gland pack	Bearings	Safety factor
Special servi Normal			-			
Design P psiA	Actuator	Code	Size	Unit	Supply press 60	
DesignTmax degF			AUTOM	paid	00	
DesignTmin degF	Valve torques BTO	ftlb		ETC	ftib	
				LIU	lub	
Recommended safety factor	Actuator torques BTO	ftlb		ETC	ftib	
Show details		10.5		LIC	lub	
Calculate	Safety factors BTO			ETC		
Calculate	ыо			EIC		
lesult:						
/alve						
Actuator						
/alve:						

Nelprof On/Off Different components of Nelprof (drop down information)

Linit

Eiquid		ater		No Pulp	Pip
🔠 Gas		eam		r in 2-phase	DP-
					Max
Crit press Special se	rvi	ps	iA	3208.214 Normal	Cor
Design P		ps	iA		
DesignTm		deg			Valv
DesignTm	in	deg	βF		BTO
Recomm	tails	d safet	-	actor	Actu BTC Saf
Result:					
Valve					
Actuator					
Valve:					

Pipeline	Unit		Inlet dia	Outlet dia	Thickness	Schedule
		in				40
Process data	Unit		Case 1]		
Inlet temp		degF				
DP-shutoff		psi				
Valve	Unit		Туре	Press rating	Code	Size
		in	I ALL	ALL ANSI		
Max capacity		FpCv				
Construction	Material		BALL BUTTERFLY	and pack	Bearings	Safety factor
			GLOBE			1.
Actuator	Code		ANGLE	iit	Supply press	Spring rate
			SEGMENT	psiG		
Valve torques			GENERIC			
BTO		filb	OBSOLETE	С	ftlb	
			omi			
Actuator torques	-			FTO	Alb	
BTO	ftlb			ETC	ftlb	
Safety factors						
BTO				ETC		

Inlat dia

Outlatidia Thisknasa Oshadula

Nelprof On/Off Different components of Nelprof (drop down information)

Liquid	Water	Pulp
Gas :	B Steam	7 2-phase
Crit press Special servi	psiA	3208.214 Normal
Design P DesignTmax DesignTmin	psiA degF degF	
] Recomment		factor
Ca	lculate	
esult:		

Pipeline	Unit	Inlet dia	Outlet dia	Thickness	Schedule
	ir				40
Process data	Unit	Case 1			
Inlet temp	degF				
DP-shutoff	ps	i			
Valve	Unit	Туре	Press rating	Code	Size
	in	ALL	ALL ANSI		
Max capacity	FpC	1	ALL PN		
			ALL ANSI		
Construction	Material	Seat	PN 10	arings	Safety factor
			PN 16		1.2
	Code	Cize	PN 25	and areas	Oncing cate
Actuator	Code	Size	PN 40	pply press	and the second second second
		AUTOM		60	
Valve torques			PN 100		
BTO	ftit		PN 160 PN 250	2	
510	100		PN 420		
Actuator torques	5		ANSI 150		
BTO	ftlb		ANSI 300	•	
	-		ANSI 600		
Safety factors			ANSI 900		
BTO			ANSI 1500		
			ANSI 2500		
			ANSI 4500		

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Nelprof On/Off Different components of Nelprof (torque expansion)

			Pipeline	Unit
		No		
Liquid W	ater	Pulp	Process data	Unit
			Inlet temp	C
		1 H H	DP-shutoff	
		2-phase	Valve	Unit
			Max capacity	F
Oritaraaa	naid	2000.044	Construction	Material
Crit press	psiA	3208.214		
Special servi		Normal	Actuator	Code
Design P	psiA			
DesignTmax	degF			_
DesignTmin	degF		Valve torques	
_	-		BTO	
			RTO	ftlb
Recommende	ed safety	factor	ETO	ftlb
Show details			Actuator torques	6
	1.655 . 20		BTO	ftlb
Cal	culate		RTO	ftlb
esult:			ETO	ftlb
/alve			Safety factors	
alve			BTO	
Actuator			RTO	
Valve:			ETO	
valve.				

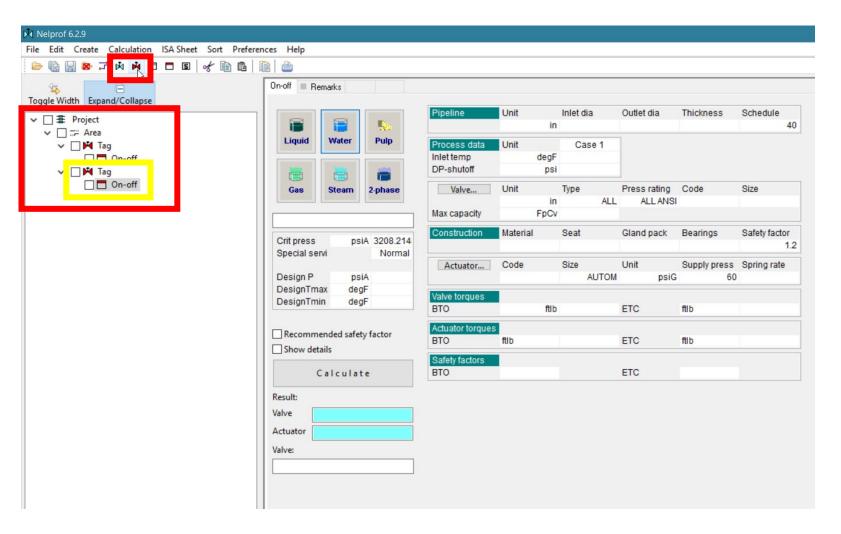
Pipeline	Unit	Inlet dia	Outlet dia	Thickness	Schedule
	in				40
Process data	Unit	Case 1]		
Inlet temp	degF				
DP-shutoff	psi				
Valve	Unit	Туре	Press rating	Code	Size
	in	ALL	ALL ANSI		
Max capacity	FpCv				
Construction	Material	Seat	Gland pack	Bearings	Safety factor
					1.3
Actuator	Code	Size	Unit	Supply press	Spring rate
		AUTOM	psiG	60	
Valve torques	1				
BTO	ftlb		ETC	ftlb	
RTO	ftlb		RTC	ftlb	
ETO	ftlb		BTC	ftlb	
Actuator torques					
BTO	ftlb		ETC	ftlb	
RTO	ftlb		RTC	ftlb	
ETO	ftlb		BTC	ftlb	
Safety factors					
BTO			ETC		
RTO			RTC		
ETO			BTC		

Nelprof On/Off Different components of Nelprof (seat drop down)

Liquid		ater		No. Pulp		Pip			
Enquita				. up		Pro			
Cas		eam	2	a Phase		DF			
Crit press psiA 3208.214 Special servi Normal									
Design P	_								
	DesignTmax degF DesignTmin degF								
Recommended safety factor Show details									
Calculate									
Result:									
Valve									
Actuator									
Valve:									

Pipeline	Unit		Inlet dia	Outlet	dia	Th	ickne	ess	Schedule	
		in								40
Process data	Unit		Case 1]						
Inlet temp		degF								
DP-shutoff		psi								
Valve	Unit		Туре	Press	rating	С	ode		Size	
		in	BALL	A	NSI 150			XMBV		3
Max capacity		FpCv								
Construction	Material		Seat	Gland	pack	Be	aring	gs	Safety fact	or
			al, Type P, K, S		FE/TFE			PTFE		1.2
Actuator	Code		Metal, Type P,				unnly	proce	Spring rate	
Actuator	Code		Metal, Type H, Soft, Type X, T	G, E, J			2 Phil	60	opingrate	
	_		зон, турел, т							
Valve torques										
BTO		ftlb		ETC		ftll	0			
Actuator torques										
вто	ftlb			ETC		ftll	0			
	_									
Safety factors										
Safety factors BTO				ETC						

Nelprof On/Off Different components of Nelprof (new valve tag)



Nelprof On/Off

Different components of Nelprof (safety and service factors)

Liquid Water Pulp Process data Unit Case 1 Inlet temp degF 100 DP-shutoff psi 200 Valve Unit Type Press rating Code Size Gas Steam 2-phase Valve Unit Type Press rating Code Size Valve Unit Type Press rating Code Size Crit press psiA 3208.214 Cor struction Material Seat Gland pack Bearings Safety factor Special servi Normal Cor struction Material Seat Gland pack Bearings Safety factor Design P psiA 3208.214 Cor Struction Material Seat Gland pack Bearings Safety factor Design P psiA Mormal ctuator Code Size Unit Supply press Spring rate Design Tmax degF Dirty Sticky Normal ctuator Code Size Unit			.	Pipeline	Unit	in	Inlet d	lia 3	Outlet dia 3	Thickness	Schedule	10
Image: Steam Image: Steam <td< td=""><td></td><td>Water</td><td></td><td></td><td>11-1</td><td></td><td></td><td></td><td>1</td><td></td><td>4</td><td>10</td></td<>		Water			11-1				1		4	10
DP-shutoff psi 200 Valve Unit Type Press rating Code Size Max capacity FpCv 1160 ANSI 150 XMBV Crit press psiA 3208.214 Cor struction Material Seat Gland pack Bearings Safety factor Special servi Normal Cor struction Material Seat Gland pack Bearings Safety factor Design P psiA 3208.214 Cor struction Material Seat Gland pack Bearings Safety factor Design P psiA Mormal Dirty Sticky Normal PTFE/TFE PTFE TT T Design Tmax degr Sticky Nonlubricant ED ftlb 117 ETC ftlb 99 Design Tmin degr Bolymer ftlb 177 RTC ftlb 99 Monubricant ED ftlb 177 RTC ftlb 13 Maccommended safety factor ETO ftlb 152 <th< td=""><td></td><td></td><td></td><td></td><td>Unit</td><td></td><td>Ca</td><td></td><td></td><td></td><td></td><td></td></th<>					Unit		Ca					
Gas Steam 2-phase Valve Unit Type Press rating ANSI 150 Code Size Crit press psiA 3208.214 Cof struction Material Seat Gland pack Bearings Safety factor Crit press psiA 3208.214 Cof struction Material Seat Gland pack Bearings Safety factor Design P psiA Dirty Normal Dirty B1J AUTOM psiG 60 Design P psiA Dirty B1J AUTOM psiG 60 60 Mormal Dirty B1J AUTOM psiG 60 60 Design P psiA Dirty B1J AUTOM psiG 60 Max capacity factor ETO ftib 117 ETC ftib 9 PDS polymer ftib 117 ETC ftib 13 C a I c u I a t e RTO ftib 152 RTC ftib 12 Result: Valve XMBV, 3 in BTO 2.3						-						
in BALL FpCv ANSI 150 XMBV Max capacity FpCv 1160 XMBV Crit press psiA 3208.214 Cor struction Material Seat Gland pack PTFE/TFE Bearings Safety factor Special servi Normal Normal Code Size Unit Supply press Spring rate Design P psiA Dirly Sticky B1J AUTOM psiG 60 DesignTmax degF Sticky Nonlubricant Sticky torques End 117 ETC ftlb 99 DesignTmax degF Nonlubricant Sticky torques End 117 ETC ftlb 99 PDS polymer ftlb 117 ETC ftlb 99 PDS polymer ftlb 117 ETC ftlb 117 Image: Second structure ETC ftlb 117 ETC ftlb 117 Image: Second structure ETC ftlb 117 ETC ftlb 117 Show details	i 🖻			DP-shutoff		psi		200				
Max capacity FpCv 1160 Crit press psiA 3208.214 Cor struction Material Seat Gland pack Bearings Safety factor Special servi Normal Normal Normal PTFE PTFE PTFE 1. Design P psiA DesignTmax degF Sticky B1J AUTOM psiG 60 DesignTmin degF Sticky Normal torques 100 117 ETC ftlb 90 DesignTmin degF Spolymer 1160 117 ETC ftlb 90 VAccommended safety factor ETO ftlb 117 ETC ftlb 90 Show details Actuator torques BTO ftlb 14 BTC ftlb 13 Ro ftlb 152 RTC ftlb 121 BTC ftlb 122 Result: Valve XMBV, 3 in BTO ETO ftlb 121 BTC ftlb 16 Valve: MBV, 3 in BTO 2.3	Gas	Steam	2-phase	Valve	Unit		Туре		Press rating	Code	Size	
Crit press psiA 3208.214 Cor struction Material Seat Gland pack Bearings Safety factor Special servi Normal Normal Image: Cord structure Metal, Type P, Image: Cord structure PTFE/TFE PTFE 1. Design P psiA Dirty Sticky Cord structure B1J AUTOM psiG 60 Design Tmax degF Dirty Sticky V torques ED ftlb 117 ETC ftlb 99 Design Tmin degF Nonlubricant ED ftlb 117 ETC ftlb 99 Metant torques ED ftlb 117 ETC ftlb 11 V Recommended safety factor ETO ftlb 14 BTC ftlb 13 C a l c u l a t e BTO ftlb 152 RTC ftlb 12 Result: Valve XMBV, 3 in BTO 2.3 ETC 1.6 Valve: BTJ10 0 2.3 ETC 1.6 Valve: B						in		BALL	ANSI 150	XMBV		3
Crit press psiA 3208.214 Metal, Type P, F PTFE/TFE PTFE 1. Special servi Normal Dirty Dirty Sticky B1J AUTOM psiG 60 Design P psiA Dirty Sticky Normal Dirty B1J AUTOM psiG 60 Design Tmax degF Sticky Nonlubricant ED ftlb 117 ETC ftlb 99 Design Tmin degF Nonlubricant ED ftlb 117 ETC ftlb 99 PDS polymer ftlb 117 ETC ftlb 97 77 RTC ftlb 117 Mecommended safety factor ETO ftlb 14 BTC ftlb 117 Monulation Actuator torques BTO ftlb 1266 ETC ftlb 132 Result: Valve XMBV, 3 in BTO ftlb 121 BTC ftlb 16 Valve: MBU, 3 in BTO 2.3 ETC 1.6 1.6 Va				Max capacity		FpCv		1160				
Crit press psiA 3208.214 Metal, Type P, F PTFE/TFE PTFE 1. Special servi Normal Dirty Sticky Dirty Sticky				Cor struction	Material		Seat		Gland pack	Bearings	Safety factor	
Normal Design P psiA Normal Dirty i ctuator Code Size Unit Supply press Spring rate Design Tmax degF Dirty Sticky Nonlubricant B1J AUTOM psiG 60 Design Tmin degF Sticky Nonlubricant ED ftlb 117 ETC ftlb 99 PDS polymer ftlb 177 RTC ftlb 77 Mecommended safety factor ETO ftlb 14 BTC ftlb 17 Show details Actuator torques BTO ftlb 14 BTC ftlb 13 Result: Valve XMBV, 3 in Actuator torques BTO ftlb 152 RTC ftlb 16 Valve XMBV, 3 in BTO 2.3 ETC 1.5 1.6 Valve: Iso 2.3 ETC 1.6 9.6			3208.214				Metal,	Type P, F			-	.2
Design P psiA Dirty B1J AUTOM psiG 60 DesignTmax degF Sticky Nonlubricant ESD ftlb 117 ETC ftlb 99 DesignTmin degF DesignTmin degF ftlb 117 ETC ftlb 99 PDS polymer ftlb 77 RTC ftlb 77 ✓ Neccommended safety factor ETO ftlb 266 ETC ftlb 13 ✓ Show details Actuator torques BTO ftlb 152 RTC ftlb 13 C a l c u l a t e MBV, 3 in Actuator torques BTO ftlb 152 RTC ftlb 121 Valve XMBV, 3 in BTO ftlb 121 BTC ftlb 16 Valve: XMBV, 3 in BTO 2.3 ETC 1.5 BTO 2.3 ETC 1.6 9.6	Special s	servi			<u> </u>		<u>.</u>			. .	a ·	_
DesignTmax degF Sticky Nonlubricant ESD torques DesignTmin degF SD ftlb 117 ETC ftlb 99 PDS polymer ftlb 77 RTC ftlb 77 ✓ Recommended sarety factor ETO ftlb 14 BTC ftlb 1 ✓ Show details Actuator torques BTO ftlb 266 ETC ftlb 13 Result: Valve XMBV, 3 in Actuators BTO ftlb 121 BTC ftlb 16 Valve: XMBV, 3 in BTO 2.3 ETC 1.5 16 Valve: ETO 8.8 BTC 9.6 9.6				/ ctuator	Code						· -	
DesignTmin degF Nonlubricant ESD ftorques DS polymer ftlb 117 ETC ftlb 9 PDS polymer ftlb 77 RTC ftlb 7 ✓ Recommended sarety factor ETC ftlb 14 BTC ftlb 11 ✓ Show details Actuator torques BTO ftlb 266 ETC ftlb 13 C a l c u l a t e BTO ftlb 152 RTC ftlb 12 Result: Valve XMBV, 3 in BTO 2.3 ETC 1.5 Valve: III0 2.3 ETC 1.6 9.6 Valve: ETO 8.8 BTC 9.6	-	psiA	Sticky			B1J		AUTOM	psiG	60		
Design fills fills 117 ETC fills 99 PDS polymer fills 77 RTC fills 7 Meccommended sarety ractor ETO fills 14 BTC fills 1 Show details Actuator torques BTO fills 266 ETC fills 13 C a l c u l a t e RTO fills 152 RTC fills 12 Result: Valve XMBV, 3 in BTO 2.3 ETC fills 16 Valve: B1J10 PTO 2.3 ETC 1.5 1.6 1.6 Valve: ETO 8.8 BTC 9.6 9.6 9.6	-			v torques								
Image: Commended safety factor ETO fill 14 BTC fill 1 Show details Actuator torques BTO fill 266 ETC fill 13 C a l c u l a t e BTO fill 152 RTC fill 12 Result: Safety factors BTO fill 121 BTC fill 16 Valve XMBV, 3 in BTO 2.3 ETC 1.5 1.6 Valve: ETO 8.8 BTC 9.6	Designi	min degr		C		ftlb		117	ETC	ftlb	g	94
✓ Show details Actuator torques Calculate BTO ftlb 266 ETC ftlb 13 Result: Result: TO ftlb 121 BTC ftlb 16 Valve XMBV, 3 in BTO 2.3 ETC 1.5 RTO 2 RTC 1.6 Valve: ETO 8.8 BTC 9.6			PDS polymer		ftlb			77	RTC	ftlb	7	77
CalculateBTOftlb266 ETCftlb13BTOftlb152 RTCftlb12Result:ETOftlb121 BTCftlb16ValveXMBV, 3 inSafety factorsBTO2.3ETC1.5ActuatorB1J10C2RTC1.6Valve:ETO8.8BTC9.6	✓ Kecom	mended safety	factor	EIU	ftlb			14	BTC	ftlb	1	17
Calculate BTO filb 266 ETC filb filb 13 Result: RTO filb 152 RTC filb 12 Valve XMBV, 3 in BTO 2.3 ETC 1.5 Actuator B1J10 2 RTC 1.6 Valve: TO 8.8 BTC 9.6	Show d	letails		Actuator torques								_
CalculateRTOftlb152RTCftlb12Result:ETOftlb121BTCftlb16ValveXMBV, 3 inSafety factorsBTO2.3ETC1.5ActuatorB1J10RTO2RTC1.6Valve:ETO8.8BTC9.6					-			266	ETC	filb	13	20
Result: ETO ftlb 121 BTC ftlb 16 Valve XMBV, 3 in Safety factors BTO 2.3 ETC 1.5 Actuator B1J10 RTO 2 RTC 1.6 Valve: ETO 8.8 BTC 9.6		Calculate										
Safety factors Valve XMBV, 3 in Actuator B1J10 Valve: ETC 1.6 ETO 8.8												
Actuator B1J10 BTO 2.3 ETC 1.5 Valve: ETO 2 RTC 1.6	Result:							121	510	100		
Actuator B1J10 2.3 E1C 1.5 Valve: ETO 2 RTC 1.6	Valve	XMBV, 3 in										
Valve: ETO 8.8 BTC 9.6												
	Actuator	B1J10										
Recommended safety factor	Valve:		_	ETO		8.8			BTC	9.6		
				Recommended :	safety fac	tor						
Open / Close 1.2								1.2				

Nelprof On/Off Sizing Example 1 (Basic Sizing X-MBV)



Customer Inquiry:

- Pipe Line Size 3"
- Media Dirty Liquid (Size a metal seated and soft seated alternate)
 - Pressure = 200 psi
 - Temperature = 100°F
- Valve 3" X-MBV Ball Valve with Metal Seats
- Actuator B1J with 60 psi supply

Nelprof On/Off



40

3

121

104

51

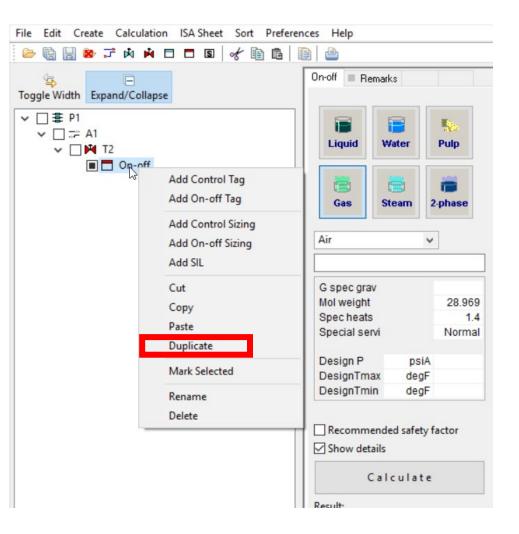
290

264 342

Different components of Nelprof (safety and service factors)

kg/m3	1 3208.214	Pipeline Process data Inlet temp DP-shutoff Valve Max capacity Construction Actuator Valve torques BTO	Unit Unit Unit Material Code		Type Seat Metal, Size	ia 3 se 1 100 200 BALL 1160 Type H, 4	Outlet dia 3 Press rating ANSI 150 Gland pack PTFE/TFE Unit psiG	Code XMBV Bearings Metal Supply press	Safety factor Spring rate
kg/m3 psiA	Pulp 2-phase	Inlet temp DP-shutoff Valve Max capacity Construction Actuator Valve torques	Unit Material	degF psi in FpCv WCB	Type Seat Metal, Size	se 1 100 200 BALL 1160 Type H,	Press rating ANSI 150 Gland pack PTFE/TFE Unit	Code XMBV Bearings Metal Supply press	Size Safety factor Spring rate
kg/m3 psiA cp	2-phase	Inlet temp DP-shutoff Valve Max capacity Construction Actuator Valve torques	Unit Material	psi in FpCv WCB	Type Seat Metal, Size	100 200 BALL 1160 Type H,	ANSI 150 Gland pack PTFE/TFE Unit	XMBV Bearings Metal Supply press	Safety factor Spring rate
kg/m3 psiA cp	2.phase 1 3208.214	Inlet temp DP-shutoff Valve Max capacity Construction Actuator Valve torques	Material	psi in FpCv WCB	Type Seat Metal, Size	200 BALL 1160 Type H,	ANSI 150 Gland pack PTFE/TFE Unit	XMBV Bearings Metal Supply press	Safety factor Spring rate
kg/m3 psiA cp	2.phase 1 3208.214	Valve Max capacity Construction Actuator Valve torques	Material	in FpCv WCB	Type Seat Metal, Size	BALL 1160 Type H,	ANSI 150 Gland pack PTFE/TFE Unit	XMBV Bearings Metal Supply press	Safety factor Spring rate
kg/m3 psiA cp	2.phase 1 3208.214	Max capacity Construction Actuator Valve torques	Material	FpCv WCB	Seat Metal, Size	1160 Type H,	ANSI 150 Gland pack PTFE/TFE Unit	XMBV Bearings Metal Supply press	Safety factor Spring rate
kg/m3 psiA cp	1 3208.214	Construction Actuator Valve torques		FpCv WCB	Seat Metal, Size	1160 Type H,	Gland pack PTFE/TFE Unit	Bearings Metal Supply press	Safety factor Spring rate
kg/m3 psiA cp	1 3208.214	Construction Actuator Valve torques		WCB	Seat Metal, Size	Type H,	PTFE/TFE Unit	Metal Supply press	Spring rate
kg/m3 psiA cp	1 3208.214	Actuator Valve torques		WCB	Metal, Size		PTFE/TFE Unit	Metal Supply press	Spring rate
psiA cp	3208.214	Valve torques	Code		Size		Unit	Supply press	Spring rate
psiA cp	3208.214	Valve torques	Code	B1J		AUTOM			
psiA cp	3208.214	Valve torques		B1J		AUTOM	psiG		
ср	•								
-									
ft/s	1400	DTO							
		BIO		ftlb			ETC	ftlb	12
	Dirty	RTO	ftlb			104	RTC	ftlb	10
		ETO	ftlb			41	BTC	ftlb	5
psiG	i								
degF		Actuator torques				500	570	A 11-	
degF	:	BTO	ftlb				ETC	ftlb	29
		RTO	ftlb				RTC	ftlb	26
		ETO	ftlb			237	BTC	ftlb	34
ed safety	factor	Safety factors							
		BTO		3.5			ETC	2.4	
		RTO		2.9			RTC	2.5	
culate	•	ETO		5.8				6.7	
		Recommended	safety fac	tor]		
		Open / Close				1.5			
V, 3 in									
c			ETO Recommended	ETO Recommended safety fac	ETO 5.8 Recommended safety factor Open (Close	ETO 5.8 Recommended safety factor Open (Close	ETO 5.8 Recommended safety factor Open / Close 15	ETO 5.8 BTC Recommended safety factor Open / Close 15	ETO 5.8 BTC 6.7 Recommended safety factor Open / Close 15

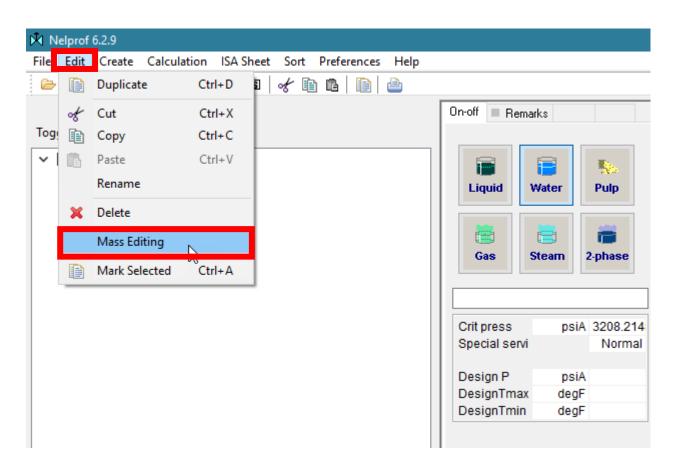
Nelprof On/Off Tricks and tips (duplicate)



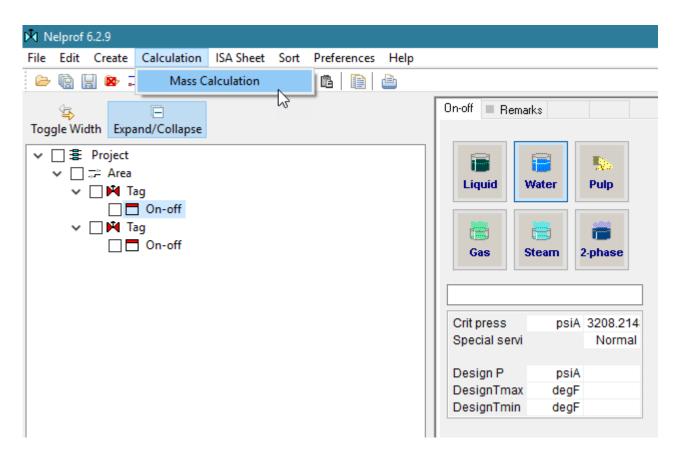
Nelprof On/Off Tricks and tips (duplicate)

nces Help	
On-off Remarks	
Liquid Wate Gas Stea	
Crit press Special servi Design P DesignTmax DesignTmin	psiA 3208.214 Normal psiA degF degF
	On-off Remarks

Nelprof On/Off Tricks and tips (mass edit)



Nelprof On/Off Tricks and tips (mass calc)



NELES

Nelprof On/Off Tricks and tips (spring rate)

	1	1 00	Pipeline	Unit	Inlet dia 4	Outlet dia 4	Thickness	Schedule 40
Liquid	Water	Pulp	Process data Inlet temp DP-shutoff	Unit degF psi	Case 1 600 300			
Gas	Steam	2-phase	Valve Max capacity	Unit in FpCv	Type BALL	Press rating ANSI 300	Code XMBV	Size 4
Air		¥	Construction	Material	Seat Metal, Type H,	Gland pack PTFE/TFE	Bearings PTFE	Safety factor 1.2
G spec gra Mol weight Spec heats	5	28.969 1.4	Actuator	Code VPVL SR	Size 200	Unit psiG	Supply press 60	
Special se	rvi	Normal	Valve torques	Alb		FTO	ALL.	79.766 (6)
Design P DesignTm DesignTm		gF	RTO ETO	ftib ftib		RTC BTC	ftib ftib	
Recomm	ended safe		Actuator torques BTO RTO ETO	fib fib fib		ETC RTC BTC	ftib ftib ftib	
	Calcula	te	Safety factors BTO			ETC		2
Result: Valve			RTO ETO			RTC BTC		
Actuator								
Valve:								

NELES

Nelprof On/Off Tricks and tips (spring rate)

	Pipeline	Unit	Inlet dia	Outlet dia	Thickness	Schedule
		in	4	4		40
Liquid Water Pulp	Process data	Unit	Case 1]		
	Inlet temp	degF	600			
8 8 8	DP-shutoff	psi	300			
Gas Steam 2-phase	Valve	Unit	Туре	Press rating	Code	Size
		in	BALL	ANSI 300	XMBV	4
Air	Max capacity	FpCv				
	Construction	Material	Seat	Gland pack	Bearings	Safety factor
			Metal, Type H,	PTFE/TFE	PTFE	1.2
G spec grav	Actuator	Code	Size	Unit	Supply press	Spring rate
Mol weight 28.969		B1J	12	psiG		
Specheats 1.4		-			1	43.507 (K)
Special servi Normal	and an					58.01 (STD)
	BTO	ftlb		ETC	ftlb	79.766 (V)
Design P psiA		815		DTO		
DesignTmax degF	ETO	ftlb		BTC	ftlb	
DesignTmin degF	Actuator torques					
	BTO	ftlb		ETC	ftlb	
Recommended safety factor	RTO	ftlb		RTC	ftlb	
Show details	ETO	ftlb		BTC	ftlb	
	Safety factors					
Calculate	BTO			ETC		
DIt	RTO			RTC		
Result:	ETO			BTC		
Valve						
Actuator						
Valve:						
	7					
L						

Nelprof On/Off Information needed to size

- Inlet and Outlet size of the pipe
- Media
 - Type
 - Phase
 - Specific Gravity or Mol Weight if media is not defined in Nelprof

- Temperature of Media
- Pressure for the system
- Valve Type, Pressure Class, Size and Construction
- Actuator Type, Supply Pressure and Safety Factor*
 - *Default safety factor will be 1.2

Nelprof On/Off Sizing Example 2 (7150)

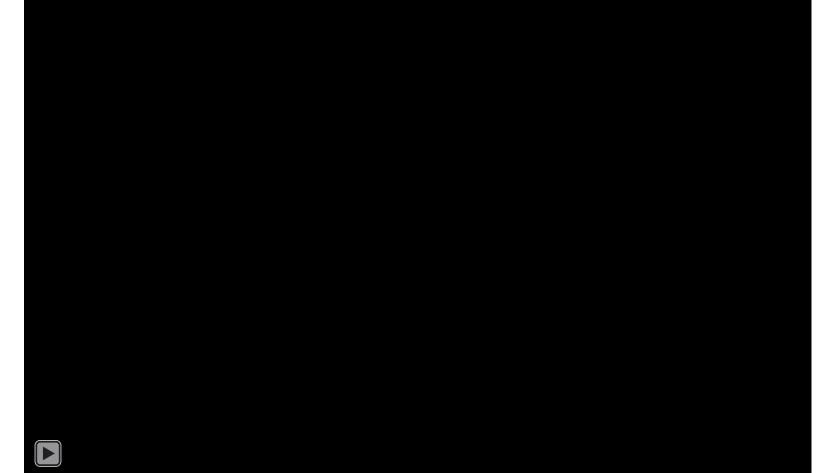
- Customer Inquiry:
- Pipe Line Size 2"
- Media Air
 - Pressure = 100 psi
 - Temperature = 70F
- Valve 2" 7150 Ball Valve with Xtreme Seats

NELES

• Actuator – VPVL with 60 psi supply

Nelprof On/Off Sizing Examples (7150)





Nelprof On/Off Sizing Examples (7150)

		No	Pipeline	Unit	Inlet d	ia 2	Outlet dia 2	Thickness	Schedule 40
		Pulp	Process data Inlet temp	Process data Unit		1 13e 1 70	1		40
8	8	-	DP-shutoff		psi	100			
Gas	Steam	2-phase	Valve	Unit	Туре		Press rating	Code	Size
					in	BALL	ANSI 150	7150	2
Air		~	Max capacity	Fp	Cv	165			
		·	Construction	Material	Seat		Gland pack	Bearings	Safety factor
						Xtreme		Non_Trunnion	1.2
G spec gra			Actuator	Code	Size		Unit	Supply press	Spring rate
Mol weight Spec heats		28.969		VPVL	SR	AUTOM	psiG	60	

Nelprof On/Off Sizing Examples (7150)

_			Pipeline	Unit	Inlet dia	1.3	Outlet dia	Thickness	Schedule	
				in		2	2			4
Liquid	Water	Pulp	Process data	Unit	Case	1	1			
			Inlet temp	degF		70				
H			DP-shutoff	psi		100				
Gas	Steam	2-phase	Valve	Unit	Туре		Press rating	Code	Size	-
				in	E	BALL	ANSI 150	7150		1
Air		×	Max capacity	FpCv		165				
			Construction	Material	Seat		Gland pack	Bearings	Safety facto	
-					Xtr	eme		Non_Trunnion		1.
G spec gra			Actuator	Code	Size		Unit	Supply press	Spring rate	
Mol weight		28.969		VPVL SR	AU	ТОМ	psiG	60		
Spec heat		1.4	Marken and an and a second second							
Special se	rvi	Normal	Valve torques BTO	ftib			ETC	ftlb		
Design P	psi	iA	RTO	ftlb			RTC	ftlb		2
DesignTm			ETO	ftlb			BTC	ftlb		2
DesignTm	-					22	ыс	lub		2
			Actuator torques	-						
		10000	BTO	ftlb			ETC	ftlb		3
	nended safet	ty factor	RTO	ftlb			RTC	ftlb		4
Show det	tails		ETO	ftlb		29	BTC	ftlb	-	5
	Calculat	e	Safety factors				FTO			
			BTO RTO	2.3			ETC RTC	1.4		
Result:			ETO	2.3			BTC	2.5		
/alve	7150, 2 in		EIO	1.3			ыс	2.4		_
_	VP300SR4/5									
	VP3005R4/5									
vaive.										

NELES

40

2

1.2

24 17 22

34 43 53

NELES

Nelprof On/Off Sizing Example 3 (830)

- Customer Inquiry:
- Pipe Line Size 6"
- Media Water
 - Pressure = 200 psi
 - Temperature = 100F
- Valve 6" 830 SH-DWN with the standard seat option
- Actuator QPX with 60 psi supply

Nelprof On/Off Sizing Examples (830)



Nelprof On/Off Sizing Examples (830)

			Pipeline	LInit		Inlet d	ia	Outlet dia	Thickness	Schedule
		- No.			in		6	6		40
Liquid	Liquid Water Pulp		Process data	Unit		Са	se 1]		
			Inlet temp		degF		100			
8	-	-	DP-shutoff		psi		200			
Gas	Steam	2-phase	Valve	Linit		Type		Press rating	Code	Size
					in	BUT	TERFLY	ANSI 300	830-SH-DWN	6
			Max capacity		FpCv		1050			
-			Construction	Material		Seat		Gland pack	Bearings	Safety factor
Crit press		3208.214					std_Soft	PTFE/TFE	PTFE	1.2
Special serv	1	Normal	Actuator	Code		Size		Unit	Supply press	Spring rate
Design P	psiA	A I			QP		AUTOM	psiG	60	
DesignTree	deal	-								

Nelprof On/Off Sizing Examples (830)

iii Liquid) Water	No. Pulp
Cas	E Steam	7. phase
Crit press Special serv		iA 3208.214 Normal
Design P DesignTma DesignTmir		gF
□ Recomme ☑ Show deta C		
	80-SH-DW P3C	/N, 6 in
Valve:		

Pipeline	Unit		Inlet	dia	Outlet dia		Thickness	Schedule
		in		6		6		40
Process data	Unit		C	ase 1]			
Inlet temp		degF		100				
DP-shutoff		psi		200				
Valve	Unit		Туре		Press rating	1	Code	Size
		in	BUT	TERFLY	ANSI 30	00	830-SH-DWN	6
Max capacity		FpCv		1050				
Construction	Material		Seat		Gland pack		Bearings	Safety factor
				std_Soft	PTFE/TF	Е	PTFE	1.2
Actuator	Code		Size		Unit		Supply press	Spring rate
		QP		AUTOM	psi	G	60	
Valve torques								
BTO		ftlb		100	ETC		ftlb	100
RTO	ftlb			30	RTC		ftlb	30
ETO	ftlb			30	BTC		ftlb	30
Actuator torques								
BTO	ftlb			184	ETC		ftib	116
RTO	ftlb			201	RTC		ftlb	215
ETO	ftlb			104	BTC		ftlb	195
Safety factors								
BTO		1.8			ETC		1.2	
RTO		6.7			RTC		7.2	
ETO		3.5			BTC		6.5	

NELES

Nelprof On/Off Sizing Example 4 (XMBV)

- Customer Inquiry:
- Pipe Line Size 4"
- Media Air
 - Pressure = 300 psi
 - Temperature = 600F
- Valve 300# XA (XMBV) with graphite packing and metal bearings
- Actuator B1J with 60 psi supply

Nelprof On/Off Sizing Examples (XMBV)

		Pipeline	Unit		Inlet d	ia	Outlet dia	Thickness	Schedule
	- No			in		4	4		40
Water	Pulp	Process data	Unit		Са	se 1			
		Inlet temp		degF		600			
-		DP-shutoff		psi		300			
Steam		Valve	Linit		Type		Press rating	Code	Siza
				in		BALL	ANSI 300	XMBV	4
	~	Max capacity		FpCv					
		Construction	Material		Seat		Gland nack	Rearings	Safety factor
					Metal,	Type H,	Graphite	Metal	1.2
		Actuator	Code		Size		Unit	Supply press	Spring rate
	28.969			B1J		AUTOM	psiG	60	
	Steam	Water Pulp Steam 2-phase	Water Pulp Pulp Pulp Process data Inlet temp DP-shutoff Valve Valve	Water Pulp Process data Unit Inlet temp DP-shutoff DP-shutoff Valve Valve	Water Pulp Pulp Process data Process data Unit Inlet temp degF DP-shutoff psi Valve Unit Max capacity FpCV Construction Material Maxed Actuator Code B1J	Water Image: Steam Steam Image: Steam 2-phase Image: Steam Valve Image: Steam Max capacity FpCV Construction Material Metal, Actuator Code Size B1J	Water Image: steam Steam Image: steam 2-phase Image: steam V 28.969 Actuator Construction Image: steam Image: steam Image: steam Image: steam <t< td=""><td>Water Pulp Image: Steam Image: Steam Image: Steam</td></t<> <td>Water Pulp Pulp in Image: Steam Image: Steam 2-phase Image: Steam Valve Unit Construction Material Seat Gland nack Max capacity FpCV Valve Val</td>	Water Pulp Image: Steam Image: Steam Image: Steam	Water Pulp Pulp in Image: Steam Image: Steam 2-phase Image: Steam Valve Unit Construction Material Seat Gland nack Max capacity FpCV Valve Val

Nelprof On/Off Sizing Examples (XMBV)

Liquid		ater		Pulp
Gas	3	eam	2.	phase
Air			¥	
G spec gr				
Mol weigh				28.9
Spec hea				1
Special s	ervi			Norm
Design P		psi	A	
DesignTn	nax	deg	F	
DesignTn	nin	deg	F	
Recomm	atails	d safet		ctor
Result:				
Result: /alve	XMBV	/, 4 in		

Pipeline	Unit		Inlet dia	Outlet dia	Thickness	Schedule
		in	4	4		40
Process data	Unit		Case 1	1		
Inlet temp	d	egF	600			
DP-shutoff		psi	300			
Valve	Unit	1	Туре	Press rating	Code	Size
		in	BALL	ANSI 300	XMBV	4
Max capacity	F	pCv	2200			
Construction	Material		Seat	Gland pack	Bearings	Safety factor
			Metal, Type H,	Graphite	Metal	1.2
Actuator	Code		Size	Unit	Supply press	Spring rate
		B1J	AUTOM	psiG	60	and the second
Valve torques						
BTO		ftib	419	ETC	ftlb	336
RTO	ftlb		283	RTC	ftlb	283
ETO	ftlb		94	BTC	ftlb	117
Actuator torques					5	
BTO	ftlb		1061	ETC	ftlb	570
RTO	ftlb		604	RTC	ftlb	519
ETO	ftlb		482	BTC	ftlb	670
Cofety feeters						
Safety factors	-				47	
BTO		2.5		ETC	1.7	
and the second	_	2.5 2.1 5.2		ETC RTC BTC	1.7	

Nelprof On/Off Sizing Examples (XMBV)

	The second second		Pipeline	Unit		Inlet d	ia	Outlet dia	1	Thickness	Scheo	dule
		- Res			in		4		4			40
Liquid	Water	Pulp	Process data	Unit		Ca	se 1	1				
			Inlet temp		degF		600					
H			DP-shutoff		psi		300					
Gas	Steam	2-phase	Valve	Unit		Туре		Press rat	ing	Code	Size	
	<u>,</u>				in		BALL	ANS	300	XMB	V	4
Vir		~	Max capacity		FpCv		2200					
		•	Construction	Material		Seat		Gland pa	ck	Bearings	Salety	factor
						Metal,	Type H,		phite			1.3
spec grav	/		Actuator	Code		Size		Unit		Supply press	Sprin	o rate
lol weight		28.969	Actoret		B1J		AUTOM		psiG			
Spec heats		1.4										
Special ser	vi	Normal	Valve torques									
			BTO		ftlb		419	ETC		ftlb		336
Design P	ps	iA	RTO	ftlb			283	RTC		ftlb		283
DesignTma	-	F	ETO	ftlb			94	BTC		ftlb		117
DesignTmi	n deg	F	Actuator torgues									
			BTO	ftib			1061	ETC		ftlb		570
Peromon	ended safet	factor	RTO	ftlb				RTC		ftlb		519
and the second		ylactor	ETO	ftib				BTC		ftib		670
Show deta	ails		EIU	lub			402	ыс		lub		0/1
c	alculat	e	Safety factors									
		-	BTO		2.5			ETC		1.		
esult:			RTO		2.1			RTC		1.		
			ETO		5.2			BTC		5.	/	
IVe X	MBV, 4 in											
ctuator B	1J16											

			Pipeline	Unit		Inlet o	lia	Outlet dia	Thickness	Schedule
		Sec.			in		4	4		4
Liquid	Water	Pulp	Process data	Unit		Ca	ase 1]		
(and a second se			Inlet temp		degF		600			
8	-	1 H H	DP-shutoff		psi		300			
Gas	Steam	2-phase	Valve	Unit		Туре		Press rating	Code	Size
					in		BALL	ANSI 300	XMBV	
Air		v	Max capacity		FpCv		2200			_
		-	Construction	Material	Г	Seat		Gland pack	Bearings	afety factor
						Metal,	Type H,	PTFE/TFE	PTFE	1.3
G spec gra			Actuator	Code		Size		Unit	Supply press	Spring rate
Mol weight		28.969	recoverin		B1J		AUTOM			
Spec heats		1.4		_						
Special se	rvi	Normal	Valve torques							
			BTO		ftlb			ETC	ftlb	32
Design P	ps		RTO	ftlb				RTC	ftlb	27
DesignTm			ETO	ftlb			78	BTC	ftlb	9
DesignTm	in deg	9F	Actuator torques							
			BTO	ftlb			1061	ETC	ftib	57
Recomm	ended safe	ty factor	RTO	ftlb			604	RTC	ftlb	51
Show det			ETO	ftlb			482	BTC	ftlb	67
			Safety factors							
C	Calculat	te	BTO		2.7			ETC	1.8	
			RTO		2.2			RTC	1.9	
esult:	_		ETO		6.2			BTC	6.9	
alve)	(MBV, 4 in									
ctuator	31J16									

VS

Nelprof On/Off Sizing Example 5 (Manual Gear)

- Customer Inquiry:
- Pipe Line Size 10"
- Media Hexane
 - Pressure = 30 psi
 - Temperature = 300F
- Valve 10" 9150 Trunnion with Xtreme Seats
- Actuator Manual Gear





Nelprof On/Off Sizing Examples (Manual Gear)

		1	Pipeline	Unit	in	Inlet d	ia 10	Outlet dia 10	Thickness	Schedule 40
Liquid Wa	ater	Pulp	Process data	Unit		Ca	ise 1			
		-	DP-shutoff		aegr psi		300 30			
Gas Ste	eam 2	-phase	Valve	Onit	in	туре	BALL	Press raung ANSI 150		Size 10
Hexane	v		Max capacity		FpCv		15200			
			Construction	Material		Seat	Xtreme	Gland pack	Bearings Trunnion	Satety factor 1.2
L spec grav Density Crit press	kg/m3 nsiA	1 659 435 111	Actuator	Code	B1J	Size	AUTOM	Unit psiG	Supply press 60	Spring rate

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1.2

Nelprof On/Off Sizing Examples (Manual Gear)

			Pipeline	Unit		Inlet o	lia	Outlet dia	Thickness	Schedule
		- S an - I			in		10	10		40
Liquid V	Nater	Pulp	Process data	Unit		Ca	ase 1]		
L			Inlet temp		degF		300			
		11	DP-shutoff		psi		30			
		phase	Valve	Unit		Туре		Press rating	Code	Size
Ous a		phuae	Volven	Unit	in	1)00	BALL	-		
		7	Max capacity		FpCv		15200			
Hexane	~				· ·					
			Construction	Material		Seat		Gland pack	Bearings	Safety factor
							Xtreme		Trunnion	1.2
L spec grav		1	Actuator	Code		Size		Unit	Supply press	Spring rate
Density	kg/m3	659			B1J		AUTOM	psiG		· -
Crit press	psiA	435.111						-		
Viscosity	ср	1500.175	valve torques				700		au	700
Sound vel	π/s	4593.175	BTO	8 11-	ftlb			ETC	ftlb	709
Special servi		Normal	RTO	ftlb				RTC	ftlb	496
Design P	psiA		ETO	ftlb			038	BTC	ftlb	638
DesignTmax	degF		Actuator torques							
DesignTmin	degF		BTO	ftlb			2128	ETC	ftlb	1096
Designini	uogi		RTO	ftlb			1222	RTC	ftlb	999
			ETO	ftlb			989	BTC	ftlb	1290
Recommend	led safety f	actor	Safety factors							
Show details			BTO		3			ETC	1.5	
			RTO		2.5			RTC	2	
C a	lculate		ETO		1.5			BTC	2	
			210		1.0			510	_	
Result:			-							
Valve 9150)-TRUN, 10) in								
Actuator B1J2	10									
Actuator BIJ2	20									
Valve:										
L										

Nelprof On/Off Sizing Examples (Manual Gear)

Valve Torques

Valve torques						
BTO		ftlb	709	ETC	ftlb	709
RTO	ftlb		496	RTC	ftlb	496
ETO	ftlb		638	BTC	ftlb	638
Actuator torque	S					
Actuator torque BTO	s ftlb		2128	ETC	ftib	1096
				ETC RTC	ftib ftib	1096 999

Manual Actuator Torques

				Operating	/alues - per AP	1 608 & 609	Operating Values - MAX			
Actuator	Approx. Handwheel Turns Weight Diameter to Open		Rim Max. Input Pull Torque		Max. Output Torque	Rim Pull	Max. Input Torque	Max. Output Torque		
	lbs	inches	-	lbs	ft-lbs	ft-lbs	lbs	ft-lbs	ft-lbs	
MGR5/Q	5	8	10	35	12	111	35	12	111	
MGR7/Q	8	8	9	63	21	243	63	21	243	
MGR10/Q	8	12	9	64	32	369	64	32	369	
MGR12/Q	19	20	9	74	61	738	74	61	738	
MGR14/Q	31	32	10	80	107	1408	84	112	1475	
MGR15/Q	49	32	14	80	107	2027	95	126	2397	
MGR16/Q	53	32	27	75	101	3319	75	101	3319	
MGR20/K85	108	24	61	80	80	6480	82	82	6638	
MGR30/K105	142	28	81	77	90	12539	77	90	12539	
MGR40/K135	296	28	182	78	91	19177	78	91	19177	

10" 9150 Max Torque = 709 ft-lbs Standard Practice 20% Safety Factor

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709*1.2 = 851 ft-lbs

The best option would be an MGR14/QA

54

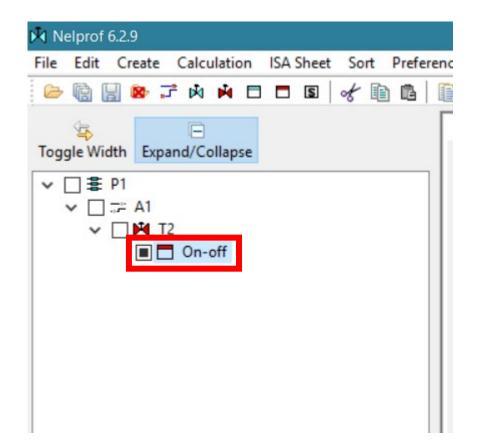
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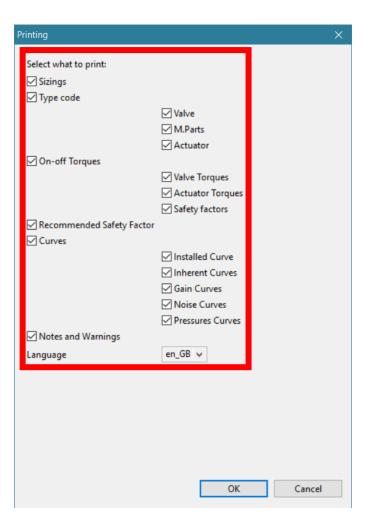
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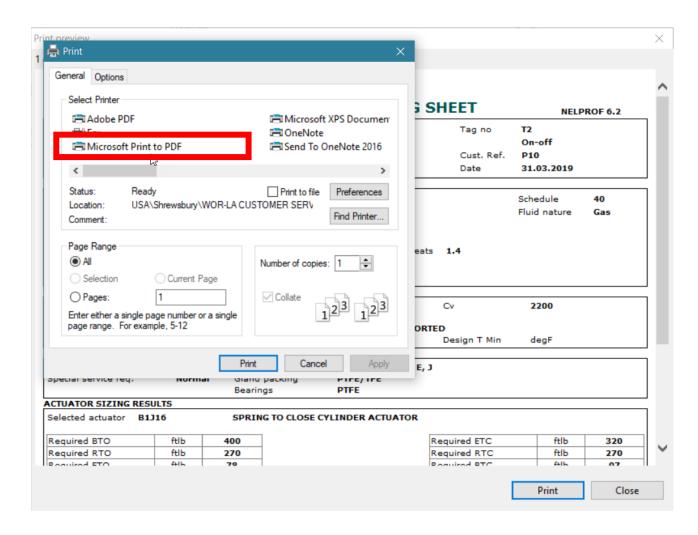
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Frequently Asked Questions

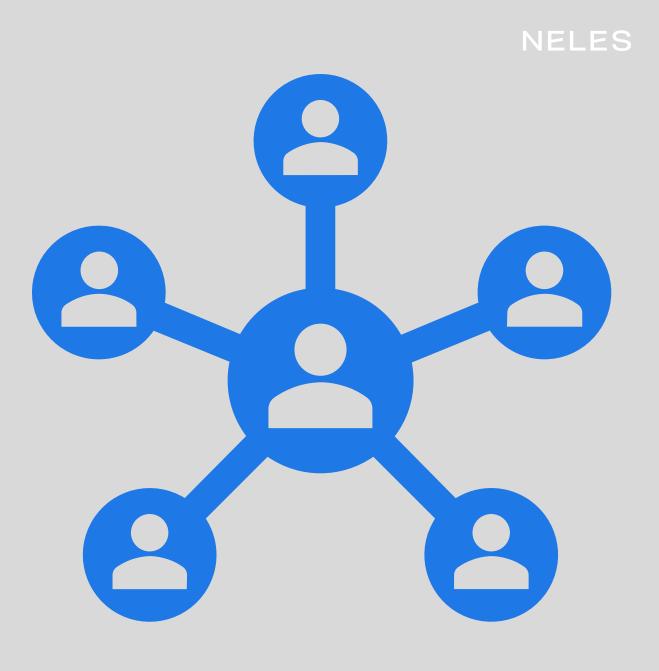
- Q: Does the recommended Safety Factor take priority over the normal SF box?
 - A: Nelprof will use whatever safety factor is larger between the recommended safety factor from Nelprof, or the user entered safety factor.
- Q: How to size globe valve for on/off tag?
 - A: Nelprof does not have globe valves in the on/off module currently. If you do need to size a globe valve for an on/off application, you can do so in a control tag.
- Q: When will Nelprof X be available?
 - A: We hope to launch Nelprof X either later this year, or early next year. Nelprof X will be a web based version of Nelprof, that you will not have to download / install.
- Q: Does Nelprof also provide MAST values ?
 - A: Not currently. If MAST values are needed, please contact application engineering.

Frequently Asked Questions

- Q: If customer already calculated 1.5 safety factor for ESD, multiplying design pressure with coefficient 1.5- do we size the actuator than with safety factor 1?
 - A: Yes. For example if we added a 1.5x safety factor to process conditions the customer has already added a 1.5x safety factor to would give the customer a 3x safety factor, which is not what they wanted.
- Q: What is the difference when you directly select "steam" selecting the "steam button" or select if from the medium menu?
 - A: There is no difference. You can select "steam" either way. The same is true for water.
- Q: If we do sizing in Nelprof 6.3 and Nelprof X for the same case, will we get exactly the same results?
 - A: We are constantly updating our information in Nelprof to provide the most accurate ISA factors and torques for our products. So, it is possible for sizings done in different versions of Nelprof to be slightly different.

Contact us

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- Applications Engineering
 - <u>apps.engineering@neles.com</u>



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