

NVP20

- High Productivity – non-clogging design reduces downtime
- Strong hold – powerful vacuum up to 28"Hg [948mbar]
- Mounts Easily – compact and lightweight
- Fast Response – installs close to vacuum point
- Efficient – minimal air consumption
- Reliable operation – straight-through design with no moving parts

Technical Data

Fluid:
Filtered (50 Micron) unlubricated, non-corrosive dry gases

Operating Temperature
-30° to ~250° F (-34° to ~121°C)

Operating Pressure
80 PSI (5.5 bar) Standard or 60 PSI (4.1 bar)

Materials
Pump Body: Anodized Aluminum

Supply/Vacuum Line
1/4" OD for sizes 60 and 90
3/8" OD for sizes 100 and 150

Mounting Holes
Mounting holes accept 10-32[M5] screws

Control Valve
3 way/2 position (faster part release), minimum orifice – 0.125" [3mm]

Performance Level Designations
"L", "X" 0-10"Hg [0 to 339mbar] for low vacuum/high flow applications
"M", "Y" 0-20"Hg [0 to 677mbar] for medium vacuum/high flow applications
"H", "Z" 0-28"Hg [0 to 948mbar] for high vacuum/standard flow applications

Product options
Standard (NVP20)
Pneumatic blow-off (NVP2X)
Valve controlled blow-off (NVP20V)
Multi-port (NVP20M0)
Air Saver (NVP20C0)



Standard Models

Accessories

Part number	Max. Vacuum Level	Max. Vacuum Flow	Air Consumption	Silencer
NVP20-90M-S05A00	20"Hg	1.40 SCFM	1.40 SCFM	NST4 Silencer
NVP20-90H-S05A00	28"Hg	1.20 SCFM	1.80 SCFM	NST4 Silencer
NVP20-100M-S05A00	20"Hg	2.10 SCFM	1.80 SCFM	NST4 Silencer
NVP20-100H-S05A00	28"Hg	2.00 SCFM	2.80 SCFM	NST4 Silencer
NVP20-150M-S05A00	20"Hg	3.50 SCFM	2.80 SCFM	NST4 Silencer
NVP20-150H-S05A00	28"Hg	3.20 SCFM	4.80 SCFM	NST4 Silencer

Option selector

NVP★20-★★★★-S★★A★★

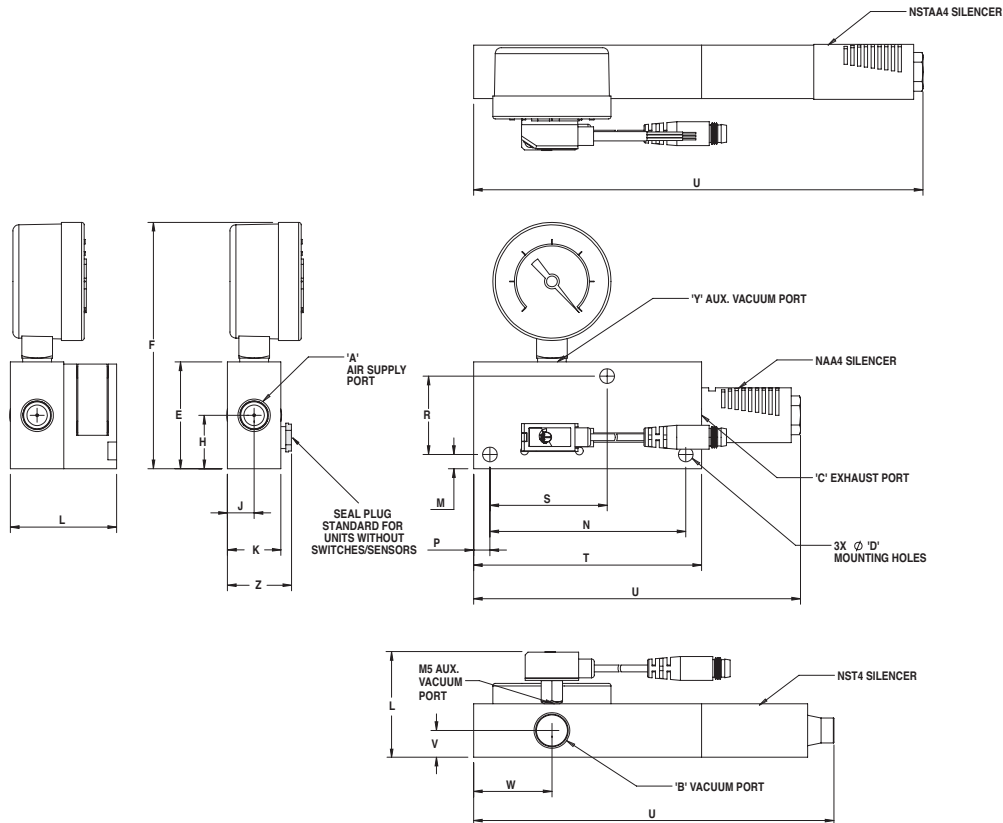
Series	Substitute	Accessories	Substitute
NVP (Imperial Thread)		Extra Ports / No Accessories	A00
NVPM (Metric Thread)	M	Extra Ports / NVG-150-GF	A38
Vacuum Flow Level	Substitute	Extra Ports / NVTMV-QD-6 / NVG-150-GF	A22
Venturi Cartridge 60	60	Extra Ports / NVSMN-QD-6 / NVG-150-GF	A24
Venturi Cartridge 90	90	Extra Ports / NVSMP-QD-6 / NVG-150-GF	A26
Venturi Cartridge 100	100	Silencers	Substitute
Venturi Cartridge 150	150	None	S00
Vacuum Level	Substitute	NAA4 (62dB)	S02
10"Hg @ 80PSI (Standard)	L	NST4 (68dB)	S05
20"Hg @ 80PSI (Standard)	M	NSTAA4 (58dB)	S12
28"Hg @ 80PSI (Standard)	H		
10"Hg @ 60PSI	X		
20"Hg @ 60PSI	Y		
28"Hg @ 60PSI	Z		

● Accessories

Model	Inline Fitting	Swivel Elbow	Vacuum Fitting	Bellows Cup	Flat Cup	Spring Leveler
NVP20-90M-S05A00	124250428	124470428	NVCF45-14M	NBG*****	NFG*****	NVSL3-***
NVP20-90H-S05A00	124250428	124470428	NVCF45-14M	NBG*****	NFG*****	NVSL3-***
NVP20-100M-S05A00	124250628	124470628	NVCF45-14M	NBG*****	NFG*****	NVSL3-***
NVP20-100H-S05A00	124250628	124470628	NVCF45-14M	NBG*****	NFG*****	NVSL3-***
NVP20-150M-S05A00	124250628	124470628	NVCF45-14M	NBG*****	NFG*****	NVSL3-***
NVP20-150H-S05A00	124250628	124470628	NVCF45-14M	NBG*****	NFG*****	NVSL3-***

*Proper selection of vacuum cups depends on the application. Cups are available in various durometers, colors and materials. If you do not see what you are looking for, please consult factory
 *The fittings, cups, and spring levelers listed are a small selection of possible options please refer to the specific catalog section

● Dimensions inches (mm)



Model	Units	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	Y	Z
NVP20-****-S02A0*	Imperial	1/4 NPTF	1/4 NPTF	1/4 NPTF	0.21	1.50	3.46	0.75	0.38	0.75	N/A	0.20	2.75	0.23	1.10	1.65	3.20	4.59	0.38	1.10	1/8 NPTF	0.92
NVP20-****-S05A0*	Imperial	1/4 NPTF	1/4 NPTF	1/4 NPTF	0.21	1.50	3.46	0.75	0.38	0.75	N/A	0.20	2.75	0.23	1.10	1.65	3.20	5.06	0.38	1.10	1/8 NPTF	0.92
NVP20-****-S12A0*	Imperial	1/4 NPTF	1/4 NPTF	1/4 NPTF	0.21	1.50	3.46	0.75	0.38	0.75	N/A	0.20	2.75	0.23	1.10	1.65	3.20	6.31	0.38	1.10	1/8 NPTF	0.92
NVP20-****-S**A0*	Imperial	1/4 NPTF	1/4 NPTF	1/4 NPTF	0.21	1.50	3.46	0.75	0.38	0.75	1.49	0.20	2.75	0.23	1.10	1.65	3.20	N/A	0.38	1.10	1/8 NPTF	N/A
NVPM20-****-S02A0*	(Metric)	(G 1/4)	(G 1/4)	(G 1/4)	(5.33)	(38.1)	(87.88)	(19.05)	(9.53)	(19.05)	N/A	(5.08)	(69.85)	(5.84)	(27.94)	(41.91)	(81.82)	(116.59)	(9.53)	(27.94)	(G 1/8)	(23.24)
NVPM20-****-S05A0*	(Metric)	(G 1/4)	(G 1/4)	(G 1/4)	(5.33)	(38.1)	(87.88)	(19.05)	(9.53)	(19.05)	N/A	(5.08)	(69.85)	(5.84)	(27.94)	(41.91)	(81.82)	(128.52)	(9.53)	(27.94)	(G 1/8)	(23.24)
NVPM20-****-S12A0*	(Metric)	(G 1/4)	(G 1/4)	(G 1/4)	(5.33)	(38.1)	(87.88)	(19.05)	(9.53)	(19.05)	N/A	(5.08)	(69.85)	(5.84)	(27.94)	(41.91)	(81.82)	(160.27)	(9.53)	(27.94)	(G 1/8)	(23.24)
NVPM20-****-S**A0*	(Metric)	(G 1/4)	(G 1/4)	(G 1/4)	(5.33)	(38.1)	(87.88)	(19.05)	(9.53)	(19.05)	(37.85)	(5.08)	(69.85)	(5.84)	(27.94)	(41.91)	(81.82)	N/A	(9.53)	(27.94)	(G 1/8)	N/A

NVP20V

- High Productivity – non-clogging design reduces downtime
- Strong hold – powerful vacuum up to 28"Hg [948mbar]
- Mounts Easily – compact and lightweight
- Fast Response – installs close to vacuum point
- Efficient – minimal air consumption
- Reliable operation – straight-through design with no moving parts

Technical Data

Fluid:
Filtered (50 Micron) unlubricated, non-corrosive dry gases

Operating Temperature
-30° to ~250° F (-34° to ~121°C)
-20° to ~120° F (-7° to ~49°C) (Valve)

Operating Pressure
80 PSI (5.5 bar) Standard or 60 PSI (4.1 bar)

Materials
Pump Body: Anodized Aluminum

Supply/Vacuum Line
1/4" OD for sizes 60 and 90
3/8" OD for sizes 100 and 150

Mounting Holes
Mounting holes accept 10-32[M5] screws

Electrical
24V - 5% to 10% (VA/VD, VB/VE option)
12V - 5% to 10% (VA/VD, VB/VE option)

Power Consumption
1.6 watts

Response Times
8 milliseconds

Cycle Rate (cycles/second)
45 cycles/second

Electrical Connection
11.8" Flying Leads

LED Indicator with Manual Override
Yes

Control Valve
12V (VC/VF option) or 24V normally closed (VA/VD option) or 24V normally open (VB/VE option)

Performance Level Designations
"L", "X" 0-10"Hg [0 to 339mbar] for low vacuum/high flow applications
"M", "Y" 0-20"Hg [0 to 677mbar] for medium vacuum/high flow applications
"H", "Z" 0-28"Hg [0 to 948mbar] for high vacuum/standard flow applications

Product options
Standard (NVP20)
Pneumatic blow-off (NVP2X)
Valve controlled blow off (NVP20V)
Multi-port (NVP20M)
Air Saver (NVP20C)



Standard Models

Part number	Valve	Max. Vacuum Level	Max. Vacuum Flow	Air Consumption	Silencer	Blow Off
NVP20VA-90M-S05A00	NC 24V	20"Hg	1.40 SCFM	1.40 SCFM	NST4 Silencer	None
NVP20VA-90H-S05A00	NC 24V	28"Hg	1.20 SCFM	1.80 SCFM	NST4 Silencer	None
NVP20VA-100M-S05A00	NC 24V	20"Hg	2.10 SCFM	1.80 SCFM	NST4 Silencer	None
NVP20VA-100H-S05A00	NC 24V	28"Hg	2.00 SCFM	2.80 SCFM	NST4 Silencer	None
NVP20VA-150M-S05A00	NC 24V	20"Hg	3.50 SCFM	2.80 SCFM	NST4 Silencer	None
NVP20VA-150H-S05A00	NC 24V	28"Hg	3.20 SCFM	4.80 SCFM	NST4 Silencer	None
NVP20VD-90M-S05A00	NC 24V	20"Hg	1.40 SCFM	1.40 SCFM	NST4 Silencer	Valve Controlled
NVP20VD-90H-S05A00	NC 24V	28"Hg	1.20 SCFM	1.80 SCFM	NST4 Silencer	Valve Controlled
NVP20VD-100M-S05A00	NC 24V	20"Hg	2.10 SCFM	1.80 SCFM	NST4 Silencer	Valve Controlled
NVP20VD-100H-S05A00	NC 24V	28"Hg	2.00 SCFM	2.80 SCFM	NST4 Silencer	Valve Controlled
NVP20VD-150M-S05A00	NC 24V	20"Hg	3.50 SCFM	2.80 SCFM	NST4 Silencer	Valve Controlled
NVP20VD-150H-S05A00	NC 24V	28"Hg	3.20 SCFM	4.80 SCFM	NST4 Silencer	Valve Controlled

Accessories

Option selector

NVP20★★-★★★-S★★A★★

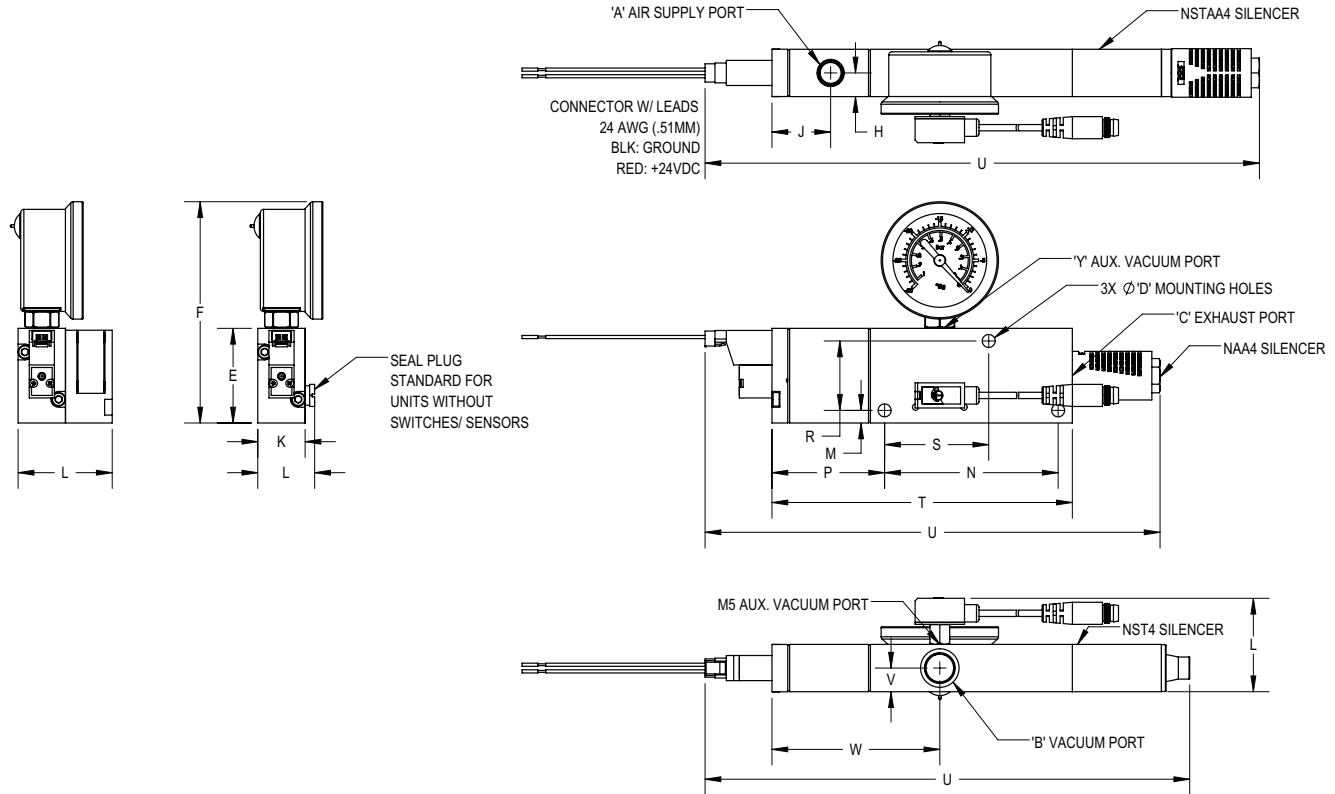
Series	Substitute	Accessories	Substitute
NVP20 (Imperial Thread)		Extra Ports / No Accessories	A00
NVPM20 (Metric Thread)	M	Extra Ports / NTMV-QD-6	A02
		Extra Ports / NSMN-QD-6	A04
		Extra Ports / NSMP-QD-6	A06
Valve	Substitute	Silencers	Substitute
NC 24V Vacuum	VA	None	S00
NO 24V Vacuum	VB	NAA4 (62dB)	S02
NC 12V Vacuum	VC	NST4 (68dB)	S05
NC 24V Vacuum, NC 24V Blow Off	VD	NSTAA4 (58dB)	S12
NO 24V Vacuum, NC 24V Blow Off	VE		
NC 12V Vacuum, NC 12V Blow Off	VF		
Vacuum Flow Level	Substitute	Vacuum Level	Substitute
Venturi Cartridge 60	60	10"Hg @ 80PSI (Standard)	L
Venturi Cartridge 90	90	20"Hg @ 80PSI (Standard)	M
Venturi Cartridge 100	100	28"Hg @ 80PSI (Standard)	H
Venturi Cartridge 150	150	10"Hg @ 60PSI	X
		20"Hg @ 60PSI	Y
		28"Hg @ 60PSI	Z

● Accessories

Model	Inline Fitting	Swivel Elbow	Vacuum Fitting	Bellows Cup	Flat Cup	Spring Leveler
NVP20-90M-S05A00	124250428	124470428	NVCF45-14M	NBG*****	NFG*****	NVSL3-***
NVP20-90H-S05A00	124250428	124470428	NVCF45-14M	NBG*****	NFG*****	NVSL3-***
NVP20-100M-S05A00	124250628	124470628	NVCF45-14M	NBG*****	NFG*****	NVSL3-***
NVP20-100H-S05A00	124250628	124470628	NVCF45-14M	NBG*****	NFG*****	NVSL3-***
NVP20-150M-S05A00	124250628	124470628	NVCF45-14M	NBG*****	NFG*****	NVSL3-***
NVP20-150H-S05A00	124250628	124470628	NVCF45-14M	NBG*****	NFG*****	NVSL3-***

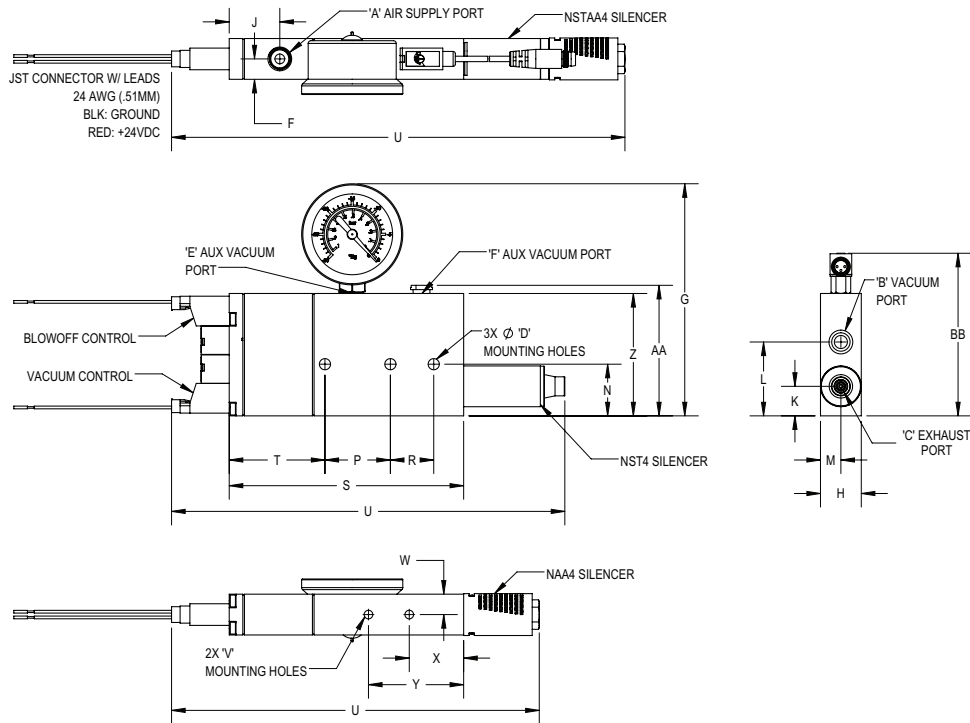
*Proper selection of vacuum cups depends on the application. Cups are available in various durometers, colors and materials. If you do not see what you are looking for, please consult factory
 *The fittings, cups, and spring levelers listed are a small selection of possible options please refer to the specific catalog section

● Dimensions inches (mm)



Model	Units	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	W	Y
NVP20-****-S02A0*	Imperial	1/8 NPTF	1/4 NPTF	1/4 NPTF	0.20	1.50	3.51	0.38	0.93	0.75	0.90	0.20	2.75	1.79	1.10	1.65	4.76	7.21	0.38	2.66	1/8 NPTF
NVP20-****-S05A0*	Imperial	1/8 NPTF	1/4 NPTF	1/4 NPTF	0.20	1.50	3.51	0.38	0.93	0.75	0.90	0.20	2.75	1.79	1.10	1.65	4.76	7.68	0.38	2.66	1/8 NPTF
NVP20-****-S12A0*	Imperial	1/8 NPTF	1/4 NPTF	1/4 NPTF	0.20	1.50	3.51	0.38	0.93	0.75	0.90	0.20	2.75	1.79	1.10	1.65	4.76	8.79	0.38	2.66	1/8 NPTF
NVP20-****-S**A0*	Imperial	1/8 NPTF	1/4 NPTF	1/4 NPTF	0.20	1.50	3.51	0.38	0.93	0.75	1.49	0.20	2.75	1.79	1.10	1.65	4.76	N/A	0.38	2.66	1/8 NPTF
NVPM20-****-S02A0*	(Metric)	(G 1/8)	(G 1/4)	(G 1/4)	(5.1)	(38.1)	(89.2)	(9.7)	(23.6)	(19.05)	22.9	(5.08)	(69.85)	(45.5)	(27.94)	(41.91)	(120.90)	(183.1)	(9.7)	(67.6)	(G 1/8)
NVPM20-****-S05A0*	(Metric)	(G 1/8)	(G 1/4)	(G 1/4)	(5.1)	(38.1)	(89.2)	(9.7)	(23.6)	(19.05)	22.9	(5.08)	(69.85)	(45.5)	(27.94)	(41.91)	(120.90)	(195.1)	(9.7)	(67.6)	(G 1/8)
NVPM20-****-S12A0*	(Metric)	(G 1/8)	(G 1/4)	(G 1/4)	(5.1)	(38.1)	(89.2)	(9.7)	(23.6)	(19.05)	22.9	(5.08)	(69.85)	(45.5)	(27.94)	(41.91)	(120.90)	(223.3)	(9.7)	(67.6)	(G 1/8)
NVPM20-****-S**A0*	(Metric)	(G 1/8)	(G 1/4)	(G 1/4)	(5.1)	(38.1)	(89.2)	(9.7)	(23.6)	(19.05)	(37.85)	(5.08)	(69.85)	(45.5)	(27.94)	(41.91)	(120.90)	N/A	(9.7)	(67.6)	(G 1/8)

● Dimensions inches (mm)



Models	Units	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z	AA	BB
NVP20SV-***-S02A38	Imperial	1/8	1/4	1/4	0.21	1/8	0.38	4.27	0.75	0.93	0.54	1.36	0.38	0.95	1.20	0.80	4.31	1.76	6.76	10-32	0.38	1.00	1.75	2.25	2.40	N/A
		NPTF	NPTF	NPTF		NPTF																				
NVP20SV-***-S02A38	Imperial	1/8	1/4	1/4	0.21	1/8	0.38	4.27	0.75	0.93	0.54	1.36	0.38	0.95	1.20	0.80	4.31	1.76	7.23	10-32	0.38	1.00	1.75	2.25	2.40	N/A
		NPTF	NPTF	NPTF		NPTF																				
NVP20SV-***-S02A38	Imperial	1/8	1/4	1/4	0.21	1/8	0.38	4.27	0.75	0.93	0.54	1.36	0.38	0.95	1.20	0.80	4.31	1.76	8.34	10-32	0.38	1.00	1.75	2.25	N/A	3.00
		NPTF	NPTF	NPTF		NPTF																				
NVP20SV-***-S02A38	Imperial	1/8	1/4	1/4	0.21	1/8	0.38	4.27	0.75	0.93	0.54	1.36	0.38	0.95	1.20	0.80	4.31	1.76	N/A	10-32	0.38	1.00	1.75	2.25	N/A	3.00
		NPTF	NPTF	NPTF		NPTF																				
NVP20SV-***-S02A38	(Metric)	(G	(G	(G	(5.3)	(G	(9.7)	(108.5)	(19.0)	(23.6)	(13.7)	(34.5)	(47.6)	(24.1)	(30.5)	(20.3)	(109.5)	(44.7)	(171.7)	(M5)	(9.7)	(25.4)	(44.4)	(57.1)	(61.0)	N/A
		1/8)	1/4)	1/4)		1/8)																				
NVP20SV-***-S02A38	(Metric)	(G	(G	(G	(5.3)	(G	(9.7)	(108.5)	(19.0)	(23.6)	(13.7)	(34.5)	(47.6)	(24.1)	(30.5)	(20.3)	(109.5)	(44.7)	(183.6)	(M5)	(9.7)	(25.4)	(44.4)	(57.1)	(61.0)	N/A
		1/8)	1/4)	1/4)		1/8)																				
NVP20SV-***-S02A38	(Metric)	(G	(G	(G	(5.3)	(G	(9.7)	(108.5)	(19.0)	(23.6)	(13.7)	(34.5)	(47.6)	(24.1)	(30.5)	(20.3)	(109.5)	(44.7)	(211.8)	(M5)	(9.7)	(25.4)	(44.4)	(57.1)	N/A	(76.2)
		1/8)	1/4)	1/4)		1/8)																				
NVP20SV-***-S02A38	(Metric)	(G	(G	(G	(5.3)	(G	(9.7)	(108.5)	(19.0)	(23.6)	(13.7)	(34.5)	(47.6)	(24.1)	(30.5)	(20.3)	(109.5)	(44.7)	N/A	(M5)	(9.7)	(25.4)	(44.4)	(57.1)	N/A	(76.2)
		1/8)	1/4)	1/4)		1/8)																				