

These top quality Taps are made in Switzerland, by DC-Swiss, one of the leading Tap Manufacturers in Europe. All the Taps are made of HSSE-PM (Powder Metal) or HSSE. These materials are proven to be the best solutions for the manufacture of Taps.

Sizes up to 1" diameter are made from HSSE-PM, this material gives excellent shock and wear resistant properties. Sizes over 1" are made from HSSE, this material is less prone to chipping, which can occur on larger sizes of taps. The DC-Swiss series are designed to work in general materials ranging from Aluminum alloys through to tougher steels up to HB300 and some free machining stainless steels. The taps come with DC-Swiss "V" surface treatment process as standard which gives the Taps excellent properties to reduce cold welding. This treatment is especially useful when tapping soft or gummy mild steels, which are prone to material adhering to the Tap and then causing a tooth to chip.

**N2462V-3 TAP**



Type N2320V-4 & N2420V-4 are designed for through holes, and the spiral point geometry on the Tap will push the swarf through the hole.

Type N2360V-3 & N2460V-3 have a 40 degree spiral flute, which will bring the swarf back up the flute of the tap and eject it away from the hole. This can be used up to a depth of about 2.5 times the diameter of the hole.

Type N2462V-3 have a 40 degree spiral flute, that brings the swarf back up the flute of the tap and ejects it away from the hole. The other feature of this Tap is

that the back thread forms have been truncated. This now allows the tap to do holes which are deeper than 2.5 times diameter and counter bored holes. Having the back thread forms truncated prevents the swarf from getting caught on the way out between the side wall of the hole and the tooth of the Tap.

**CHARACTERISTICS**

**Pictographs**

- 11
- 12
- 13
- 14
- 21
- 31
- 32

For material groups as per DC application chart

- Straight flutes with spiral points
- 40° right hand spiral flutes
- HSSE-PM
- Through holes, for long chipping materials
- Blind holes, for long chipping materials < 2.5 x D
- Blind holes, for long chipping materials > 2.5 x D
- 2 - 3 chamfered threads, form C
- 4 chamfered threads, form B
- Tolerance class 2B
- Truncated thread
- DC "V" surface treatment

**APPLICATION CHART FOR THREAD TAP**

		Hardness	Tensile Strength	Elongation A <sub>5</sub>	SPEED			
					SFM <Ø20mm guide line			
		BHN/HRC	N/mm <sup>2</sup>	%	Standard V treated		Coated TN/TC/VS	
10 Steels	11 Free Cutting Steels	<200	<700	<10	35	50	65	100
	12 Structural/ Cementation Steels	<200	<700	<30	35	50	65	100
	13 Carbon Steels	<300 / <32	<1000	<20	25	40	50	80
	14 Alloy Steels <950N/mm <sup>2</sup>	<280 / <30	<950	<30	25	40	50	80
20 Stainless steels	21 Free Machining Stainless Steels	<250	<850	<25	35	50	65	100
30 Cast Iron	31 Cast Iron	<250	<850	<10	35	50	65	100
	32 Spheriodal Graphite + Malleable Cast Iron	<250	<850	>10	35	50	65	100

Free Cutting Steels	Structural/ Cementation Steels	Carbon Steels	Alloy Steels <950N/mm <sup>2</sup>	Free Machining Stainless Steels	Cast Iron	Spheriodal Graphite + Malleable Cast Iron
11	12	13	14	21	31	32
1212	4023	1030	H10+H13	303	CI 25	60-40-18
1213	4032	1043	502	403	CI 30	60-45-12
12 L 13	4320	1060	4130	430F	CI 35	80-55-06
1140	5120	1095	4140			120-90-02
12 L 14	8115	1561	4340			
	A36	44W	5130			
			8622			
			P20			
			S7			
			D2			

\*also available in metric sizes

# N & V HSSE-PM Taps

**SPIRAL POINT (GUNTAPS)**  
For General and Alloy Steels and Cast Irons

## DIN Length / ANSI Shank

**N2320V-4**

**N2420V-4**



**N2320V-4**



\*

**N2420V-4**



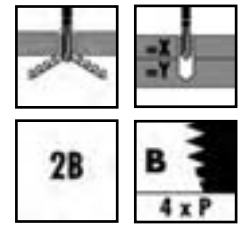
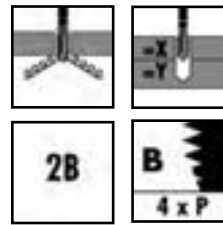
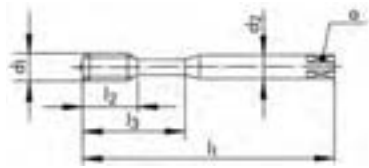
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**Tap Material: HSSE - PM / HSSE \***

Taps Above 1" are Made From HSSE Material

**Material Groups to be Tapped:**



## DIN Length / ANSI Shanks

d <sub>1</sub> Nominal Size	UNC (TPI)	UNF (TPI)	l <sub>1</sub> inch	l <sub>2</sub> inch	l <sub>3</sub> inch	d <sub>2</sub> inch	a inch		order no.
2	56		1.772	0.354	-	0.141	0.110	2	235-145001
4	40		2.205	0.472	0.709	0.141	0.110	3	235-145002
6	32		2.205	0.512	0.787	0.141	0.110	3	235-145003
8	32		2.480	0.551	0.827	0.168	0.131	3	235-145004
10	24		2.756	0.590	0.984	0.194	0.152	3	235-145005
10		32	2.756	0.590	0.984	0.194	0.152	3	235-145060
1/4	20		3.150	0.669	1.181	0.255	0.191	3	235-145006
1/4		28	3.150	0.669	1.181	0.255	0.191	3	235-145061
5/16	18		3.543	0.787	1.378	0.318	0.238	3	235-145007
5/16		24	3.543	0.787	1.378	0.318	0.238	3	235-145062
3/8	16		3.937	0.866	1.535	0.381	0.286	3	235-145008
3/8		24	3.937	0.866	1.535	0.381	0.286	3	235-145063
7/16	14		3.937	0.748	1.535	0.323	0.242	3	235-145009
7/16		20	3.937	0.748	1.535	0.323	0.242	3	235-145064
1/2	13		4.331	0.945	-	0.367	0.275	3	235-145010
1/2		20	3.937	0.945	-	0.367	0.275	3	235-145065
5/8	11		4.331	1.181	-	0.480	0.360	3	235-145011
5/8		18	3.937	1.024	-	0.480	0.360	3	235-145066
3/4	10		4.921	1.299	-	0.590	0.442	3	235-145012
3/4		16	4.921	1.299	-	0.590	0.442	3	235-145067
7/8	9		5.512	1.417	-	0.697	0.523	4	235-145013
7/8		14	5.512	1.417	-	0.697	0.523	4	235-147119
1	8		6.299	1.535	-	0.800	0.600	4	235-145014
1		12	6.299	1.535	-	0.800	0.600	4	235-147122
1 1/8	7		7.087	1.772	-	0.896	0.672	4	235-157945
1 1/4	7		7.087	1.772	-	1.021	0.766	4	235-145015
1 1/4		12	7.087	1.535	-	1.021	0.766	4	235-158467
1 1/2	6		7.874	2.165	-	1.233	0.925	4	235-145016
1 1/2		12	7.874	1.614	-	1.233	0.925	4	235-159126

\*also available in metric sizes

# N & V HSSE-PM Taps

## SPIRAL FLUTE For General and Alloy Steels and Cast Irons



N2360V-3



N2460V-3



N2462V-3



Tap Material: HSSE - PM / HSSE \*

Taps Above 1" are Made From HSSE Material

Material Groups to be Tapped:

- 11
- 12
- 13
- 14
- 21
- 31
- 32



order no.

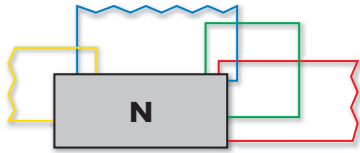
order no.

order no.

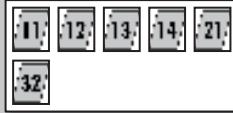
### DIN Length / ANSI Shanks

d <sub>1</sub> Nominal Size	UNC (TPI)	UNF 8 (TPI)	UN (PITCH)	I <sub>1</sub> inch	I <sub>2</sub> inch	I <sub>3</sub> inch	d <sub>2</sub> inch	a inch		order no.	order no.	order no.
2	56			1.772	0.315	-	0.141	0.110	2	235-145017		
4	40			2.205	0.216	0.709	0.141	0.110	3	235-145018		
6	32			2.205	0.256	0.787	0.141	0.110	3	235-145019		
8	32			2.480	0.295	0.828	0.168	0.131	3	235-145020		
10	24			2.756	0.354	0.984	0.194	0.152	3	235-145021		
10		32		2.756	0.354	0.984	0.194	0.152	3	235-145068		
1/4	20			3.150	0.433	1.181	0.255	0.191	3	235-145022	235-168568	
1/4		28		3.150	0.433	1.181	0.255	0.191	3	235-145069		
5/16	18			3.543	0.492	1.378	0.318	0.238	3	235-145023	235-168570	
5/16		24		3.543	0.492	1.378	0.318	0.238	3	235-145070		
3/8	16			3.937	0.551	1.535	0.381	0.286	3	235-145024	235-168572	
3/8		24		3.937	0.551	1.535	0.381	0.286	3	235-145071		
7/16	14			3.937	0.551	-	0.323	0.242	3		235-145025	
7/16		20		3.937	0.551	-	0.323	0.242	3		235-145072	
1/2	13			4.331	0.551	-	0.367	0.275	3		235-145026	235-168574
1/2		20		3.937	0.551	-	0.367	0.275	3		235-145073	
5/8	11			4.331	0.709	-	0.480	0.360	3		235-145027	235-168576
5/8		18		3.937	0.551	-	0.480	0.360	3		235-145074	
3/4	10			4.921	0.827	-	0.590	0.442	3		235-145028	235-145028
3/4		16		4.921	0.709	-	0.590	0.442	3		235-145075	
7/8	9			5.512	0.945	-	0.697	0.523	3		235-145029	235-168578
7/8		14		5.512	0.787	-	0.697	0.523	3		235-150423	
1	8			6.299	1.063	-	0.800	0.600	4			235-157629 235-168580
1		12		6.299	1.063	-	0.800	0.600	4		235-145076	
1 1/8	7			7.087	1.181	-	0.896	0.672	4			235-163444
1 1/8		8		7.087	1.181	-	0.896	0.672	4			235-158300 235-163291
1 1/4	7			7.087	1.181	-	1.021	0.766	4			235-157545
1 1/4		8		7.087	1.181	-	1.021	0.766	4			235-148489 235-163295
1 1/4		12		7.087	0.945	-	1.021	0.766	4		235-159120	
1 3/8		8		7.874	1.417	-	1.108	0.831	4			235-159480 235-163293
1 1/2	6			7.874	1.575	-	1.233	0.925	4			235-157546
1 1/2		8		7.874	1.575	-	1.233	0.925	4			235-159481 235-163297
1 1/2		12		7.874	1.181	-	1.233	0.925	4		235-159123	
1 5/8		8		7.874	1.575	-	1.305	0.979	4			235-163299
1 3/4		8		8.661	1.732	-	1.430	1.072	4			235-163302
2	4.5			9.842	2.047	-	1.644	1.233	4		235-145034	

\*also available in metric sizes



N320V-4



N320TN-4



N320TC-4



N320V-4

N320TN-4

N320TC-4



Ø d <sub>1</sub> M	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> mm	a mm		
* 2	0.40	45	8.0		2.8	2.1	2	1.60
2.5	0.45	50	10.0		2.8	2.1	3	2.05
2.6	0.45	50	10.0		2.8	2.1	3	2.15
3	0.50	56	12.0	18	3.5	2.7	3	2.50
3.5	0.60	56	13.0	20	4.0	3.0	3	2.90
4	0.70	63	14.0	21	4.5	3.4	3	3.30
5	0.80	70	15.0	25	6.0	4.9	3	4.20
6	1.00	80	17.0	30	6.0	4.9	3	5.00
8	1.25	90	20.0	35	8.0	6.2	3	6.80
10	1.50	100	22.0	39	10.0	8.0	3	8.50

ID

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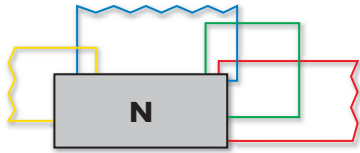
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101521

\* N320V-3 / N320TN-3



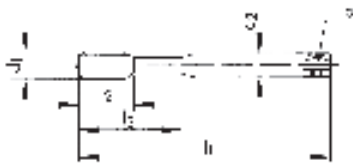
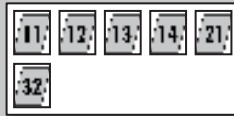
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N420V-4										
N420TN-4										
N420TC-4										
$\varnothing d_1$ M	P mm	$l_1$ mm	$l_2$ mm	$d_2$ mm	$\alpha$ mm			ID	ID	ID
3	0.50	56	12.0	2.2	1.8	3	2.50	143418		
4	0.70	63	14.0	2.8	2.1	3	3.30	102279		
5	0.80	70	15.0	3.5	2.7	3	4.20	102280		
6	1.00	80	17.0	4.5	3.4	3	5.00	102282		
7	1.00	80	17.0	5.5	4.3	3	6.00	144713		
8	1.25	90	20.0	6.0	4.9	3	6.80	102285	102251	102233
9	1.25	90	20.0	7.0	5.5	3	7.80			
10	1.50	100	22.0	7.0	5.5	3	8.50	102263	102240	102228
11	1.50	100	19.0	8.0	6.2	3	9.50			
12	1.75	110	24.0	9.0	7.0	3	10.20	102265	102243	102229
14	2.00	110	28.0	11.0	9.0	3	12.00	102267	102245	
16	2.00	110	30.0	12.0	9.0	3	14.00	102269	102247	102231
18	2.50	125	33.0	14.0	11.0	3	15.50	102271		
20	2.50	140	36.0	16.0	12.0	3	17.50	102273	102248	102232
22	2.50	140	36.0	18.0	14.5	3	19.50	102275		
24	3.00	160	39.0	18.0	14.5	4	21.00	102278	144220	
27	3.00	160	42.0	20.0	16.0	4	24.00	143856		
30	3.50	180	45.0	22.0	18.0	4	26.50	105124		
33	3.50	180	48.0	25.0	20.0	4	29.50	146968		
36	4.00	200	51.0	28.0	22.0	4	32.00	143430		
39	4.00	200	55.0	32.0	24.0	4	35.00	158724		
42	4.50	200	55.0	32.0	24.0	4	37.50	143107		
45	4.50	220	59.0	36.0	29.0	4	40.50			
48	5.00	250	63.0	36.0	29.0	4	43.00	157517		
56	5.50	280	71.0	45.0	35.0	5	50.50	158178		



N320V-4 LH



N320V-4 LH



Ø d <sub>1</sub> M	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> mm	α mm		
* 2	0.40	45	8.0		2.8	2.1	2	1.60
2.5	0.45	50	10.0		2.8	2.1	3	2.05
3	0.50	56	12.0	18	3.5	2.7	3	2.50
4	0.70	63	14.0	21	4.5	3.4	3	3.30
5	0.80	70	15.0	25	6.0	4.9	3	4.20
6	1.00	80	17.0	30	6.0	4.9	3	5.00
8	1.25	90	20.0	35	8.0	6.2	3	6.80
10	1.50	100	22.0	39	10.0	8.0	3	8.50

ID

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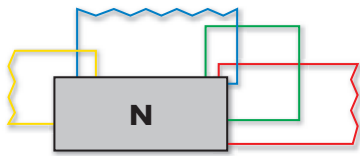
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\* N320-3

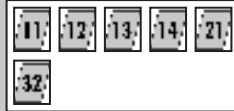


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								N450V-3	
<p>N450V-3</p>									
$\varnothing d_1$	P	$l_1$	$l_2$	$d_2$	$\alpha$			ID	
M	mm	mm	mm	mm	mm				
8	1.25	90	20.0	6.0	4.9	3	6.80	102334	
10	1.50	100	22.0	7.0	5.5	3	8.50	102329	
12	1.75	110	24.0	9.0	7.0	3	10.20	102330	
14	2.00	110	28.0	11.0	9.0	3	12.00	145487	
16	2.00	110	30.0	12.0	9.0	3	14.00	102331	
20	2.50	140	36.0	16.0	12.0	4	17.50	102332	
24	3.00	160	39.0	18.0	14.5	4	21.00	102333	



**N360V-3**



**N360TN-3**



**N360TC-3**



**N360V-3**

**N360TN-3**

**N360TC-3**



Ø d <sub>1</sub> M	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> mm	a mm		
2	0.40	45	7.0		2.8	2.1	2	1.60
2.2	0.45	45	8.0		2.8	2.1	2	1.75
2.3	0.40	45	8.0		2.8	2.1	2	1.90
2.5	0.45	50	9.0		2.8	2.1	2	2.05
2.6	0.45	50	9.0		2.8	2.1	2	2.15
3	0.50	56	5.5	18	3.5	2.7	3	2.50
3.5	0.60	56	6.5	20	4.0	3.0	3	2.90
4	0.70	63	7.5	21	4.5	3.4	3	3.30
4.5	0.75	70	9.0	25	6.0	4.9	3	3.75
5	0.80	70	9.0	25	6.0	4.9	3	4.20
6	1.00	80	11.0	30	6.0	4.9	3	5.00
7	1.00	80	11.0	30	7.0	5.5	3	6.00
8	1.25	90	12.5	35	8.0	6.2	3	6.80
9	1.25	90	12.5	35	9.0	7.0	3	7.80
10	1.50	100	14.0	39	10.0	8.0	3	8.50

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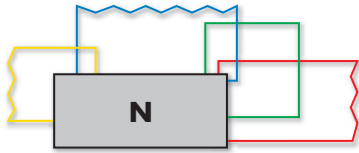
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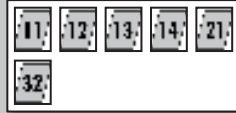
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N460V-3



N460TN-3



N460TC-3





N460V-3

N460TN-3

N460TC-3



Ø d <sub>1</sub> M	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm		
5	0.80	70	9.0	3.5	2.7	3	4.20
6	1.00	80	11.0	4.5	3.4	3	5.00
8	1.25	90	12.5	6.0	4.9	3	6.80
10	1.50	100	14.0	7.0	5.5	3	8.50
12	1.75	110	14.0	9.0	7.0	3	10.20
14	2.00	110	14.0	11.0	9.0	3	12.00
16	2.00	110	18.0	12.0	9.0	3	14.00
18	2.50	125	21.0	14.0	11.0	3	15.50
20	2.50	140	24.0	16.0	12.0	4	17.50
22	2.50	140	24.0	18.0	14.5	4	19.50
24	3.00	160	27.0	18.0	14.5	4	21.00
27	3.00	160	27.0	20.0	16.0	4	24.00
30	3.50	180	30.0	22.0	18.0	4	26.50
33	3.50	180	33.0	25.0	20.0	4	29.50
36	4.00	200	36.0	28.0	22.0	5	32.00
39	4.00	200	40.0	32.0	24.0	5	35.00
42	4.50	200	40.0	32.0	24.0	5	37.50
45	4.50	220	44.0	36.0	29.0	5	40.50
48	5.00	250	48.0	36.0	29.0	5	43.00
52	5.00	250	52.0	40.0	32.0	5	47.00
56	5.50	280	56.0	45.0	35.0	6	50.50
64	6.00	315	64.0	50.0	39.0	6	58.00

ID

ID

ID

102489

160682

102491

152850

102492

152849

102461

150242

102465

102449

102438

102468

102451

111615

102471

102453

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102473

102475

102454

143280

102477

102480

143119

102481

102482

102483

102484

102485

102486

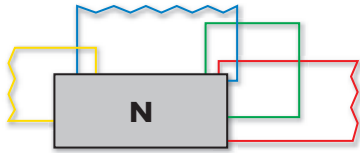
102487

102488

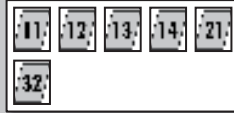
110228

102490

143805



**N360V-3 LH**



**N360V-3 LH**



Ø d <sub>1</sub> M	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> mm	a mm		
2	0.40	45	7.0		2.8	2.1	2	1.60
2.5	0.45	50	9.0		2.8	2.1	2	2.05
3	0.50	56	5.5	18	3.5	2.7	3	2.50
3.5	0.60	56	6.5	20	4.0	3.0	3	2.95
4	0.70	63	7.5	21	4.5	3.4	3	3.30
5	0.80	70	9.0	25	6.0	4.9	3	4.20
6	1.00	80	11.0	30	6.0	4.9	3	5.00
8	1.25	90	12.5	35	8.0	6.2	3	6.80
10	1.50	100	14.0	39	10.0	8.0	3	8.50

**ID**

146811

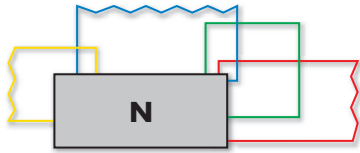
162540

144003

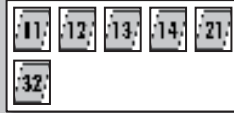
144004

143925

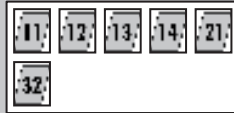
143587



N360V-5

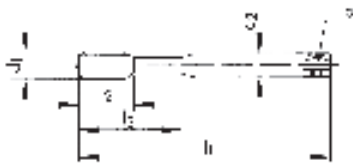


N362V-3



N360V-5

N362V-3



Ø d <sub>1</sub> M	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> mm	a mm		
2	0.40	45	7.0		2.8	2.1	2	1.60
3	0.50	56	5.5	18	3.5	2.7	3	2.50
4	0.70	63	7.5	21	4.5	3.4	3	3.30
5	0.80	70	9.0	25	6.0	4.9	3	4.20
6	1.00	80	11.0	30	6.0	4.9	3	5.00
8	1.25	90	12.5	35	8.0	6.2	3	6.80
10	1.50	100	14.0	39	10.0	8.0	3	8.50

ID

ID

150058

142646

142647

101741

142648

101742

142649

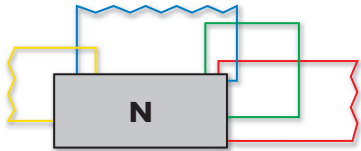













101743

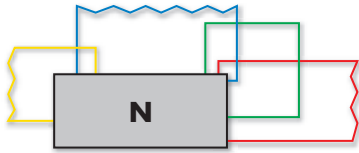
142650

101744

124899

101740

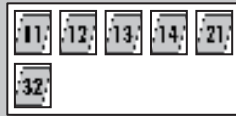
									N460V-5		N462V-3	
									<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>N460V-5</b></p>  </div> <div style="width: 45%; text-align: center;">  </div> <div style="width: 45%;"> <p><b>N462V-3</b></p>  </div> <div style="width: 45%; text-align: center;">  </div> </div>			
												
												
												
$\emptyset d_1$	P	$l_1$	$l_2$	$d_2$	$\alpha$			ID	ID			
M	mm	mm	mm	mm	mm							
12	1.75	110	14.0	9.0	7.0	3	10.20	142651	102512			
14	2.00	110	14.0	11.0	9.0	3	12.00		102513			
16	2.00	110	18.0	12.0	9.0	3	14.00		102514			
18	2.50	125	21.0	14.0	11.0	3	15.50		102515			
20	2.50	140	24.0	16.0	12.0	4	17.50		102516			
22	2.50	140	24.0	18.0	14.5	4	19.50		* 158295			
24	3.00	160	27.0	18.0	14.5	4	21.00		102517			
27	3.00	160	27.0	20.0	16.0	4	24.00		159244			
30	3.50	180	30.0	22.0	18.0	4	26.50		143090			



N420V-4



V



N420TN-4

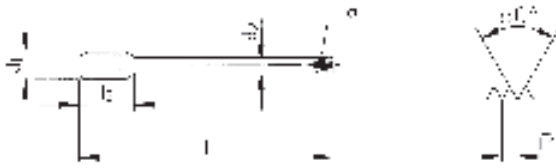


TiN



N420V-4

N420TN-4



ISO 2  
6H

ISO 2  
6H

∅ d <sub>1</sub> MF	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm		
4	0.35	63	14.0	2.8	2.1	3	3.65
4	0.50	63	14.0	2.8	2.1	3	3.50
4.5	0.50	70	15.0	3.5	2.7	3	4.00
5	0.50	70	15.0	3.5	2.7	3	4.50
5	0.75	70	15.0	3.5	2.7	3	4.25
5.5	0.50	80	17.0	4.0	3.0	3	5.00
6	0.50	80	17.0	4.5	3.4	3	5.50
6	0.75	80	17.0	4.5	3.4	3	5.25
7	0.50	80	17.0	5.5	4.3	3	6.50
7	0.75	80	17.0	5.5	4.3	3	6.25
8	0.50	90	20.0	6.0	4.9	3	7.50
8	0.75	90	20.0	6.0	4.9	3	7.25
8	1.00	90	20.0	6.0	4.9	3	7.00
9	0.50	90	20.0	7.0	5.5	3	8.50
9	0.75	90	20.0	7.0	5.5	3	8.25
9	1.00	90	20.0	7.0	5.5	3	8.00
10	0.50	100	22.0	7.0	5.5	3	9.50
10	0.75	100	22.0	7.0	5.5	3	9.25
10	1.00	100	22.0	7.0	5.5	3	9.00
10	1.25	100	22.0	7.0	5.5	3	8.80

ID

ID

142715

142716

142717

102281

102249

142718

102283

102284

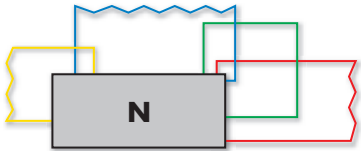




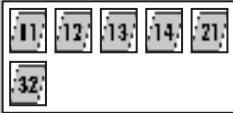














102250

143935

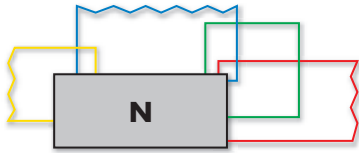
102262

102239

142719

								N420V-4	N420TN-4
									
N420V-4									
N420TN-4									
									
									
$\varnothing d_1$ MF	P mm	$l_1$ mm	$l_2$ mm	$d_2$ mm	$a$ mm			ID	ID
11	0.50	100	19.0	8.0	6.2	3	10.50		
11	0.75	100	19.0	8.0	6.2	3	10.25		
11	1.00	100	19.0	8.0	6.2	3	10.00		
11	1.25	100	19.0	8.0	6.2	3	9.80		
12	0.50	100	14.0	9.0	7.0	3	11.50		
12	0.75	100	24.0	9.0	7.0	3	11.25		
12	1.00	100	24.0	9.0	7.0	3	11.00		
12	1.25	100	24.0	9.0	7.0	3	10.80	142345	102241
12	1.50	100	24.0	9.0	7.0	3	10.50	142721	102264
13	1.00	100	21.0	11.0	9.0	3	12.00	102264	102242
14	0.50	100	14.0	11.0	9.0	3	13.50		
14	0.75	100	24.0	11.0	9.0	3	13.25		
14	1.00	100	24.0	11.0	9.0	3	13.00		
14	1.25	100	24.0	11.0	9.0	3	12.80		
14	1.50	100	24.0	11.0	9.0	3	12.50	102266	102244
15	1.00	100	26.0	12.0	9.0	3	14.00		
15	1.50	100	26.0	12.0	9.0	3	13.50		
16	0.75	100	26.0	12.0	9.0	3	15.25		
16	1.00	100	26.0	12.0	9.0	*3	15.00		
16	1.25	100	26.0	12.0	9.0	*3	14.80		
16	1.50	100	26.0	12.0	9.0	*3	14.50	102268	102246
17	1.00	100	26.0	12.0	9.0	3	16.00		
17	1.50	100	26.0	12.0	9.0	3	15.50		
18	0.75	110	26.0	14.0	11.0	4	17.25		
18	1.00	110	26.0	14.0	11.0	4	17.00		
18	1.50	110	26.0	14.0	11.0	4	16.50	102270	
18	2.00	125	33.0	14.0	11.0	3	16.00		
19	1.00	110	26.0	14.0	11.0	4	18.00		

\* N410-3 =  4



**N420V-4**

**N420V-4**



**ISO 2  
6H**



∅ d <sub>1</sub> MF	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm		
20	1.00	125	28.0	16.0	12.0	4	19.00
20	1.50	125	28.0	16.0	12.0	4	18.50
20	2.00	140	36.0	16.0	12.0	3	18.00
22	1.00	125	28.0	18.0	14.5	4	21.00
22	1.50	125	28.0	18.0	14.5	4	20.50
22	2.00	140	36.0	18.0	14.5	3	20.00
24	1.00	140	30.0	18.0	14.5	4	23.00
24	1.50	140	30.0	18.0	14.5	4	22.50
24	2.00	140	34.0	18.0	14.5	4	22.00
25	1.00	140	30.0	18.0	14.5	4	24.00
25	1.50	140	30.0	18.0	14.5	4	23.50
25	2.00	140	34.0	18.0	14.5	4	23.00
26	1.00	140	30.0	18.0	14.5	4	25.00
26	1.50	140	30.0	18.0	14.5	4	24.50
27	1.50	140	34.0	20.0	16.0	4	25.50
27	2.00	140	34.0	20.0	16.0	4	25.00
28	1.00	140	30.0	20.0	16.0	4	27.00
28	1.50	140	30.0	20.0	16.0	4	26.50
28	2.00	140	30.0	20.0	16.0	4	26.00

**ID**

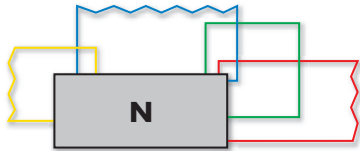
102272

102274

102276

102277

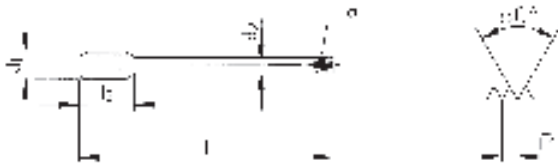
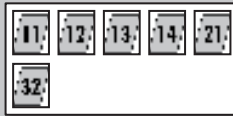
145896



N420V-4



N420V-4



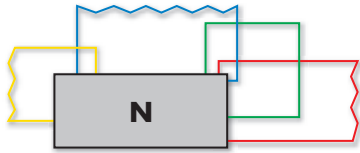
∅ d <sub>1</sub> MF	P mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm		
30	1.00	150	32.0	22.0	18.0	4	29.00
30	1.50	150	32.0	22.0	18.0	4	28.50
30	2.00	150	32.0	22.0	18.0	4	28.00
32	1.00	150	32.0	22.0	18.0	4	31.00
32	1.50	150	32.0	22.0	18.0	4	30.50
32	2.00	150	32.0	22.0	18.0	4	30.00
33	1.50	160	32.0	25.0	20.0	4	31.50
33	2.00	160	32.0	25.0	20.0	4	31.00
34	1.00	170	32.0	28.0	22.0	4	33.00
34	1.50	170	32.0	28.0	22.0	4	32.50
35	1.50	170	32.0	28.0	22.0	4	33.50
35	2.00	170	32.0	28.0	22.0	4	33.00
36	1.00	170	34.0	28.0	22.0	4	35.00
36	1.50	170	34.0	28.0	22.0	4	34.50
36	2.00	170	34.0	28.0	22.0	4	34.00
36	3.00	200	45.0	28.0	22.0	4	33.00
38	1.00	170	34.0	28.0	22.0	4	37.00
38	1.50	170	34.0	28.0	22.0	4	36.50
38	2.00	170	34.0	28.0	22.0	4	36.00
39	1.50	170	34.0	32.0	24.0	4	37.50
39	2.00	170	34.0	32.0	24.0	4	37.00
39	3.00	200	45.0	32.0	24.0	4	36.00

ID

143978

143766

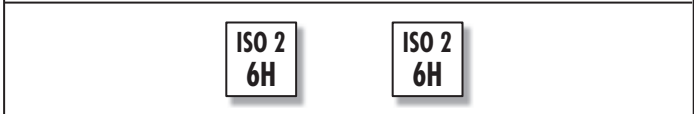
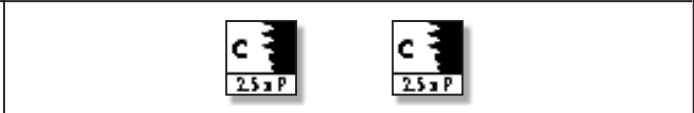




**N360V-3**

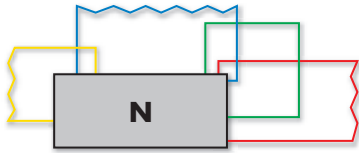
**N360TN-3**

	<b>N360V-3</b>	<b>N360TN-3</b>	
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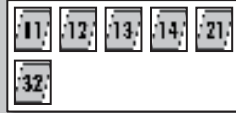


MF	∅ d <sub>1</sub>	P	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	a		
	mm	mm	mm	mm	mm	mm	mm		
4	0.50	63	7.5	21	4.5	3.4	3	3	3.50
5	0.50	70	9.0	25	6.0	4.9	3	3	4.50
6	0.50	80	11.0	30	6.0	4.9	3	3	5.50
6	0.75	80	11.0	30	6.0	4.9	3	3	5.25
8	0.75	90	12.5	35	8.0	6.2	3	3	7.25
8	1.00	90	12.5	35	8.0	6.2	3	3	7.00
10	0.75	100	14.0	39	10.0	8.0	3	3	9.25
10	1.00	100	14.0	39	10.0	8.0	3	3	9.00
10	1.25	100	14.0	39	10.0	8.0	3	3	8.80

ID	ID
101712	111618
101714	111617
143990	
101716	101702
101719	
101720	101704
144401	
101706	101695
105134	110965



N460V-3

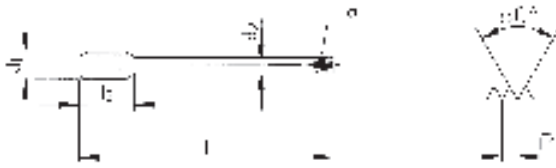


N460TN-3



N460V-3

N460TN-3



MF	$\varnothing d_1$ mm	P mm	$l_1$ mm	$l_2$ mm	$d_2$ mm	$\alpha$ mm		
12	1.00	100	14.0	9.0	7.0	3	11.00	
12	1.25	100	14.0	9.0	7.0	3	10.80	
12	1.50	100	14.0	9.0	7.0	3	10.50	
13	1.00	100	14.0	11.0	9.0	3	12.00	
14	1.00	100	14.0	11.0	9.0	3	13.00	
14	1.50	100	14.0	11.0	9.0	3	12.50	
15	1.00	100	14.0	12.0	9.0	3	14.00	
15	1.50	100	18.0	12.0	9.0	3	13.50	
16	1.00	100	14.0	12.0	9.0	4	15.00	
16	1.50	100	14.0	12.0	9.0	4	14.50	
18	1.00	110	18.0	14.0	11.0	4	17.00	
18	1.50	110	18.0	14.0	11.0	4	16.50	
20	1.00	125	20.0	16.0	12.0	4	19.00	
20	1.50	125	20.0	16.0	12.0	4	18.50	
20	2.00	140	24.0	16.0	12.0	4	18.00	
22	1.00	125	20.0	18.0	14.5	4	21.00	
22	1.50	125	20.0	18.0	14.5	4	20.50	
24	1.50	140	22.0	18.0	14.5	4	22.50	
24	2.00	140	22.0	18.0	14.5	4	22.00	
25	1.50	140	22.0	18.0	14.5	4	23.50	
26	1.50	140	22.0	18.0	14.5	4	24.50	
27	1.50	140	22.0	20.0	16.0	4	25.50	
27	2.00	140	22.0	20.0	16.0	4	25.00	
28	1.50	140	22.0	20.0	16.0	4	26.50	
30	1.50	150	24.0	22.0	18.0	4	28.50	
30	2.00	150	24.0	22.0	18.0	4	28.00	
32	1.50	150	24.0	22.0	18.0	4	30.50	
33	2.00	160	26.0	25.0	20.0	4	31.00	
35	1.50	170	24.0	28.0	22.0	5	33.50	
36	1.50	170	24.0	28.0	22.0	5	34.50	

ID

ID

102462

102447

102463

144202

102464

102448

102466

102467

102450

102469

102470

102452

143926

102472

102474

102476

102478

102479

143810

143952

144201

142524

142581

# UNC ANSI B1.1

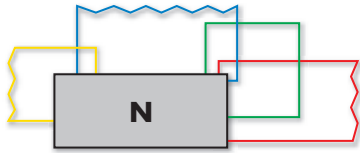
≤ Ø 2.8 > Ø 2.8

PM

HSSE



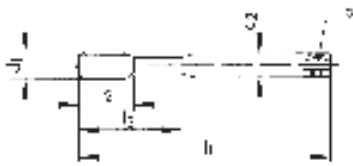
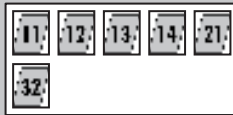
DIN 371



N320V-4

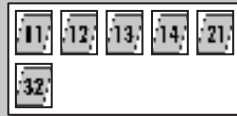
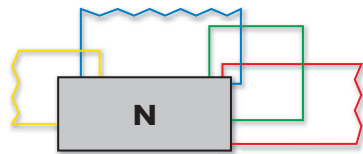


N320V-4



Ø" d <sub>1</sub> UNC	P TPI	d <sub>1</sub> mm	l <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> mm	α mm			ID
2	56	2.18	45	9.0		2.8	2.1	2	1.75	
3	48	2.51	50	10.0		2.8	2.1	2	2.00	
4	40	2.84	56	12.0	18	3.5	2.7	3	2.25	142738
5	40	3.17	56	12.0	18	3.5	2.7	3	2.55	
6	32	3.50	56	13.0	20	4.0	3.0	3	2.75	144402
8	32	4.16	63	14.0	21	4.5	3.4	3	3.40	142739
10	24	4.82	70	15.0	25	6.0	4.9	3	3.80	142740
12	24	5.48	80	17.0	30	6.0	4.9	3	4.40	
1/4	20	6.35	80	17.0	30	7.0	5.5	3	5.10	142741

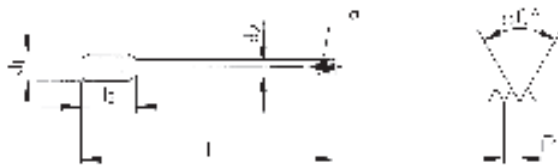
Ø" d <sub>1</sub> UNC	P TPI	d <sub>1</sub> mm	l <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> mm	α mm			
4	40	2.84	56	12.0	18	3.5	2.7	3	2.30	
6	32	3.50	56	13.0	20	4.0	3.0	3	2.80	
8	32	4.16	63	14.0	21	4.5	3.4	3	3.45	





N420V-4



2B



Ø" d <sub>1</sub> UNC	P TPI	d <sub>1</sub> mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm		
5/16	18	7.93	90	20.0	6.0	4.9	3	6.50
3/8	16	9.52	100	22.0	7.0	5.5	3	8.00
7/16	14	11.11	100	19.0	8.0	6.2	3	9.30
1/2	13	12.70	110	24.0	9.0	7.0	3	10.80
9/16	12	14.28	110	28.0	11.0	9.0	3	12.20
5/8	11	15.87	110	30.0	12.0	9.0	3	13.60
3/4	10	19.05	125	33.0	14.0	11.0	3	16.60
7/8	9	22.22	140	36.0	18.0	14.5	3	19.50
1	8	25.40	160	39.0	18.0	14.5	4	22.30
1 1/8	7	28.57	180	45.0	22.0	18.0	4	25.00
1 1/4	7	31.75	180	45.0	22.0	18.0	4	28.20
1 3/8	6	34.92	200	51.0	28.0	22.0	4	30.80
1 1/2	6	38.10	200	55.0	32.0	24.0	4	34.00
1 3/4	5	44.45	220	59.0	36.0	29.0	4	39.50
2	4.5	50.80	250	67.0	40.0	32.0	4	45.30

ID

142742

142743

142744

142745

142746

142747

142748

142749

# UNC ANSI B1.1

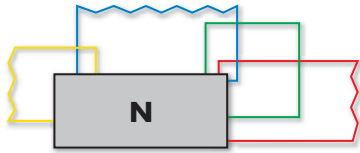
≤ Ø 2.8 > Ø 2.8

PM

HSSE

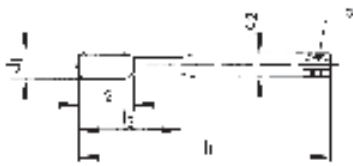
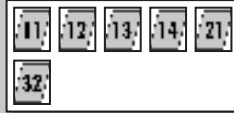




DIN 371



N360V-3

N360V-3



Ø" d <sub>1</sub> UNC	P TPI	d <sub>1</sub> mm	l <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> mm	α mm		
2	56	2.18	45	8.0		2.8	2.1	2	1.75
3	48	2.51	50	9.0		2.8	2.1	2	2.00
4	40	2.84	56	5.5	18	3.5	2.7	3	<sup>1</sup> 2.25
5	40	3.17	56	5.5	18	3.5	2.7	3	2.55
6	32	3.50	56	6.5	20	4.0	3.0	3	<sup>2</sup> 2.75
8	32	4.16	63	7.5	21	4.5	3.4	3	<sup>3</sup> 3.40
10	24	4.82	70	9.0	25	6.0	4.9	3	3.80
12	24	5.48	80	11.0	30	6.0	4.9	3	4.40
1/4	20	6.35	80	11.0	30	7.0	5.5	3	5.10
5/16	18	7.93	90	12.5	35	8.0	6.2	3	6.50
3/8	16	9.52	100	14.0	39	10.0	8.0	3	8.00

ID

148887

101725

101727

101728

101723

101722

101726

101724

UNJC  
<sup>1</sup>2.30  
<sup>2</sup>2.80  
<sup>3</sup>3.45

										<b>N460V-3</b>	
<p><b>N460V-3</b></p>											
										<b>2B</b>	
Ø" d <sub>1</sub> UNC	P TPI	d <sub>1</sub> mm	l <sub>1</sub> mm	l <sub>2</sub> mm	d <sub>2</sub> mm	a mm				ID	
7/16	14	11.11	100	14.0	8.0	6.2	3	9.30		105135	
1/2	13	12.70	110	14.0	9.0	7.0	3	10.80		102497	
9/16	12	14.28	110	14.0	11.0	9.0	3	12.20		102502	
5/8	11	15.87	110	18.0	12.0	9.0	3	13.60		102500	
3/4	10	19.05	125	21.0	14.0	11.0	3	16.60		102499	
7/8	9	22.22	140	24.0	18.0	14.5	4	19.50		102501	
1	8	25.40	160	27.0	18.0	14.5	4	22.30		102498	
1 1/8	7	28.57	180	30.0	22.0	18.0	4	25.00		102495	
1 1/4	7	31.75	180	30.0	22.0	18.0	4	28.20		102494	
1 1/2	6	38.10	200	40.0	32.0	24.0	5	34.00		102493	
1 3/4	5	44.45	220	44.0	36.0	29.0	5	39.50		128062	
2	4.5	50.80	250	52.0	40.0	32.0	5	45.30		128084	

# UNF ANSI B1.1

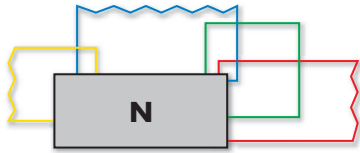
≤ Ø 2.8 > Ø 2.8

PM

HSSE



DIN 371



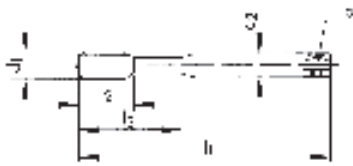
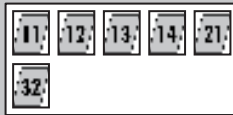
N320V-4



N320V-4



V



2B

Ø" d <sub>1</sub> UNF	P TPI	d <sub>1</sub> mm	l <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> mm	α mm			ID
0	80	1.52	40	7.0		2.5	2.1	2	1.20	
1	72	1.85	40	8.0		2.5	2.1	2	1.50	
2	64	2.18	45	9.0		2.8	2.1	2	1.80	
4	48	2.84	56	12.0	18	3.5	2.7	3	2.35	
5	44	3.17	56	12.0	18	3.5	2.7	3	2.60	
6	40	3.50	56	13.0	20	4.0	3.0	3	2.90	142765
8	36	4.16	63	14.0	21	4.5	3.4	3	3.50	
10	32	4.82	70	15.0	25	6.0	4.9	3	4.05	142766
12	28	5.48	80	17.0	30	6.0	4.9	3	4.60	
1/4	28	6.35	80	17.0	30	7.0	5.5	3	5.50	142767

Ø" d <sub>1</sub> UNF	P TPI	d <sub>1</sub> mm	l <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>3</sub> mm	d <sub>2</sub> mm	α mm			UNF
10	32	4.82	70	15.0	25	6.0	4.9	3	4.10	
1/4	28	6.35	80	17.0	30	7.0	5.5	3	5.55	

# UNF ANSI B1.1

HSSE



										<b>N420V-4</b>	
<b>N420V-4</b>											
										<b>2B</b>	
$\varnothing'' d_1$ UNF	P TPI	$d_1$ mm	$l_1$ mm	$l_2$ mm	$d_2$ mm	$a$ mm				ID	
5/16	24	7.93	90	20.0	6.0	4.9	3	6.90		142774	
3/8	24	9.52	100	22.0	7.0	5.5	3	8.50		142775	
7/16	20	11.11	100	19.0	8.0	6.2	3	9.80		142776	
1/2	20	12.70	100	24.0	9.0	7.0	3	11.40		142777	
9/16	18	14.28	100	24.0	11.0	9.0	3	12.90			
5/8	18	15.87	100	26.0	12.0	9.0	3	14.50		142778	
3/4	16	19.05	125	33.0	14.0	11.0	4	17.50		142779	
7/8	14	22.22	140	36.0	18.0	14.5	4	20.40			
1	12	25.40	160	39.0	18.0	14.5	4	23.30		142780	
1 1/8	12	28.57	180	39.0	22.0	18.0	4	26.50			
1 1/4	12	31.75	180	39.0	22.0	18.0	4	29.70			
1 3/8	12	34.92	200	36.0	28.0	22.0	4	32.80			
1 1/2	12	38.10	200	41.0	32.0	24.0	4	36.00			
$\varnothing'' d_1$ UNF	P TPI	$d_1$ mm	$l_1$ mm	$l_2$ mm	$d_2$ mm	$a$ mm			UNF		
5/16	24	7.93	90	20.0	6.0	4.9	3	7.00			
3/8	24	9.52	100	22.0	7.0	5.5	3	8.60			
7/16	20	11.11	100	19.0	8.0	6.2	3	10.00			
1/2	20	12.70	100	24.0	9.0	7.0	3	11.55			

UNF



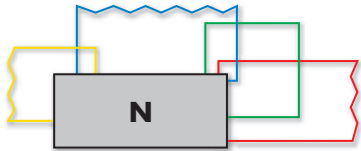


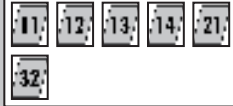










										<b>N360V-3</b>	
<p><b>N360V-3</b></p>											
										<b>2B</b>	
$\varnothing'' d_1$ UNF	P TPI	$d_1$ mm	$l_1$ mm	$l_2$ mm	$l_3$ mm	$d_2$ mm	$\alpha$ mm			ID	
6	40	3.50	56	6.5	20	4.0	3.0	3	2.90		
8	36	4.16	63	7.5	21	4.5	3.4	3	3.50	101733	
10	32	4.82	70	9.0	25	6.0	4.9	3	4.05	101730	
12	28	5.48	80	11.0	30	6.0	4.9	3	4.60		
1/4	28	6.35	80	11.0	30	7.0	5.5	3	5.50	101729	
5/16	24	7.93	90	12.5	35	8.0	6.2	3	6.90	101732	
3/8	24	9.52	100	14.0	39	10.0	8.0	3	8.50	101731	
$\varnothing'' d_1$ UNF	P TPI	$d_1$ mm	$l_1$ mm	$l_2$ mm	$l_3$ mm	$d_2$ mm	$\alpha$ mm				
10	32	4.82	70	9.0	25	6.0	4.9	3	4.10		
1/4	28	6.35	80	11.0	30	7.0	5.5	3	5.55		
5/16	24	7.93	90	12.5	35	8.0	6.2	3	7.00		
3/8	24	9.52	100	14.0	39	10.0	8.0	3	8.60		

# UNF ANSI B1.1

HSSE



		<b>N460V-3</b>							
									
<b>N460V-3</b>  									
									
									
		<b>ID</b>							
$\varnothing$ " d <sub>1</sub>	P	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	a			ID
UNF	TPI	mm	mm	mm	mm	mm			
7/16	20	11.11	100	14.0	8.0	6.2	3	9.80	142781
1/2	20	12.70	100	14.0	9.0	7.0	3	11.40	102503
9/16	18	14.28	100	14.0	11.0	9.0	3	12.90	143422
5/8	18	15.87	100	14.0	12.0	9.0	3	14.50	143097
3/4	16	19.05	125	18.0	14.0	11.0	4	17.50	102505
7/8	14	22.22	140	20.0	18.0	14.5	4	20.40	144714
1	12	25.40	160	27.0	18.0	14.5	4	23.30	102504
1 1/8	12	28.57	180	24.0	22.0	18.0	4	26.50	144414
1 1/4	12	31.75	180	24.0	22.0	18.0	4	29.70	151709
1 1/2	12	38.10	200	30.0	32.0	24.0	5	36.00	148793
$\varnothing$ " d <sub>1</sub>	P	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	a			ID
UNF	TPI	mm	mm	mm	mm	mm			
7/16	20	11.11	100	14.0	8.0	6.2	3	10.00	
1/2	20	12.70	100	14.0	9.0	7.0	3	11.55	

UNF