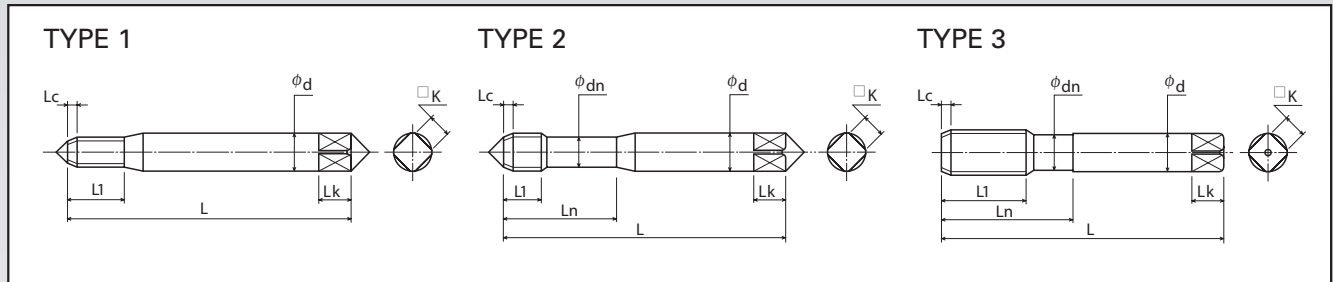


TECHNICAL DATA

TAP DIMENSIONAL INFORMATION



XHP-MB XSN-MB		UNC	UNF	L	L1	Ln	Ød	Type
2		56		1.750	0.437	0.437	0.141	1
3		48		1.812	0.500	0.500	0.141	1
4		40		1.875	0.199	0.562	0.141	2
			48	1.875	0.199	0.562	0.141	2
5		40		1.937	0.200	0.625	0.141	2
6		32		2.000	0.252	0.687	0.141	2
			40	2.000	0.248	0.687	0.141	2
8		32		2.125	0.254	0.750	0.168	2
			36	2.125	0.252	0.750	0.168	2
10		24		2.375	0.333	0.875	0.194	2
			32	2.375	0.333	0.875	0.194	2
12		24		2.375	0.335	0.937	0.220	2
			28	2.375	0.331	0.937	0.220	2
1/4		20		2.500	0.419	1.000	0.255	2
			28	2.500	0.391	1.000	0.255	2
5/16		18		2.719	0.445	1.125	0.318	2
			24	2.719	0.445	1.125	0.318	2
3/8		16		2.937	0.500	1.250	0.381	2
			24	2.937	0.500	1.250	0.381	2
7/16		14		3.157	0.571	1.437	0.323	3
			20	3.157	0.571	1.437	0.323	3
1/2		13		3.375	0.614	1.656	0.367	3
			20	3.375	0.614	1.656	0.367	3
9/16		12		3.594	0.665	1.656	0.429	3
			18	3.594	0.665	1.656	0.429	3
5/8		11		3.813	0.728	1.813	0.480	3
			18	3.813	0.728	1.813	0.480	3
3/4		10		4.250	0.799	2.000	0.590	3
			16	4.250	0.799	2.000	0.590	3
7/8		9		4.687	0.890	2.219	0.697	3
			14	4.687	0.890	2.219	0.697	3
1		8		5.125	1.000	2.500	0.800	3
			12	5.125	1.000	2.500	0.800	3
1-1/8		7		5.437	1.142	2.562	0.896	3
1-1/4		7		5.750	1.142	2.562	1.021	3
1-3/8		6		6.062	1.335	3.000	1.108	3
1-1/2		6		6.375	1.335	3.000	1.233	3
2		4-1/2		7.625	1.778	3.562	1.644	3

TECHNICAL DATA

TAP DIMENSIONAL INFORMATION

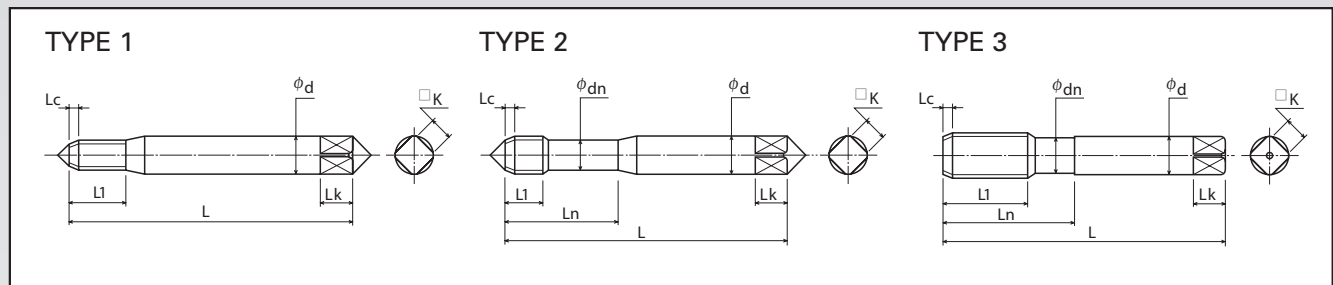


XHP-MB (Metric)		XSN-P (Metric)				
Tap Size	Pitch	L	L1	Ln	Ød	Type
M3	0.5	1.937	0.157	0.625	0.141	2
M3.5	0.6	2.000	0.189	0.688	0.141	2
M4	0.7	2.125	0.220	0.750	0.168	2
M5	0.8	2.375	0.252	0.875	0.194	2
M6	1	2.500	0.314	1.000	0.255	2
M7	1	2.719	0.315	1.125	0.318	2
M8	1	2.719	0.394	1.125	0.318	2
	1.25	2.719	0.394	1.125	0.318	2
M10	1.25	2.938	0.472	1.250	0.381	2
	1.5	2.938	0.472	1.250	0.381	2
M12	1.25	3.375	0.551	1.656	0.367	3
	1.75	3.375	0.551	1.656	0.367	3
M14	1.5	3.594	0.630	1.656	0.429	3
	2	3.594	0.630	1.656	0.429	3
M16	1.5	3.813	0.630	1.813	0.480	3
	2	3.813	0.630	1.813	0.480	3
M18	1.5	4.031	0.787	1.813	0.542	3
	2.5	4.031	0.787	1.813	0.542	3
M20	2.5	4.469	0.787	2.000	0.652	3
M24	3	4.906	0.945	2.219	0.760	3

XHP-P	XCM-Mold	XCR	XCI	XSN-P	XET-P		
Tap Size	UNC	UNF	L	L1	Ln	Ød	Type
0		80	1.750	0.312	0.312	0.141	1
2	56		1.750	0.437	0.437	0.141	1
3	48		1.812	0.499	0.500	0.141	1
4	40		1.875	0.298	0.562	0.141	2
		48	1.875	0.295	0.562	0.141	2
5	40		1.937	0.299	0.625	0.141	2
6	32		2.000	0.374	0.687	0.141	2
		40	2.000	0.370	0.687	0.141	2
8	32		2.125	0.376	0.750	0.168	2
		36	2.125	0.374	0.750	0.168	2
10	24		2.375	0.498	0.875	0.194	2
		32	2.375	0.492	0.875	0.194	2
12	24		2.375	0.500	0.937	0.220	2
		28	2.375	0.496	0.937	0.220	2
1/4	20		2.500	0.597	1.000	0.255	2
		28	2.500	0.391	1.000	0.255	2
5/16	18		2.719	0.665	1.125	0.318	2
		24	2.719	0.656	1.125	0.318	2
3/8	16		2.938	0.754	1.250	0.381	2
		24	2.938	0.740	1.250	0.381	2
7/16	14		3.156	0.858	1.437	0.323	3
		20	3.156	0.858	1.437	0.323	3
1/2	13		3.375	0.921	1.656	0.367	3
		20	3.375	0.921	1.656	0.367	3
9/16	12		3.594	1.000	1.656	0.429	3
		18	3.594	1.000	1.656	0.429	3
5/8	11		3.813	1.091	1.813	0.480	3
		18	3.813	1.091	1.813	0.480	3
3/4	10		4.250	1.201	2.000	0.590	3
		16	4.250	1.201	2.000	0.590	3
7/8	9		4.688	1.335	2.219	0.697	3
		14	4.688	1.335	2.219	0.697	3
1	8		5.125	1.500	2.500	0.800	3
1-1/4	7		5.750	1.713	2.562	1.021	3

TECHNICAL DATA

TAP DIMENSIONAL INFORMATION

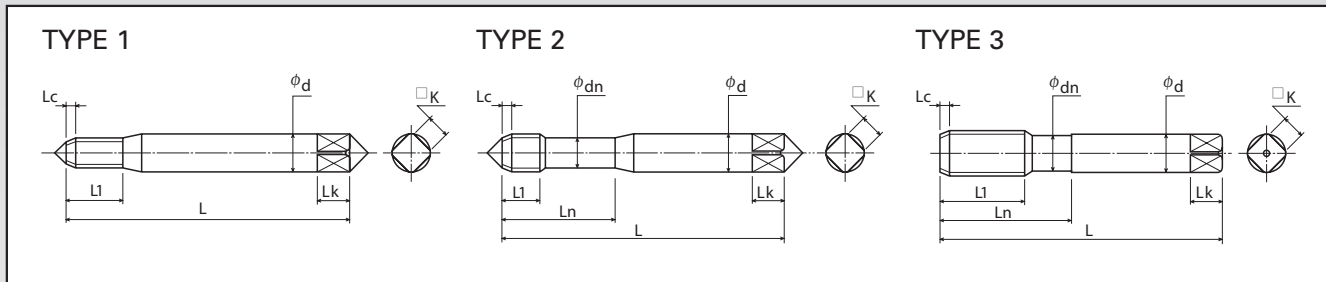


XHP-P (Metric)		XCR (Metric)		XSN-P (Metric)			
Tap Size	Pitch	L	L1	Ln	Ød	Type	
M3	0.5	1.938	0.236	0.625	0.141	2	
M3.5	0.6	2.000	0.283	0.688	0.141	2	
M4	0.7	2.125	0.344	0.750	0.168	2	
M5	0.8	2.375	0.378	0.875	0.194	2	
M6	1	2.500	0.472	1.000	0.255	2	
M7	1	2.719	0.472	1.125	0.318	2	
M8	1	2.719	0.582	1.125	0.318	2	
M8	1.25	2.719	0.589	1.125	0.318	2	
M10	1.25	2.938	0.703	1.250	0.381	2	
M10	1.5	2.938	0.710	1.250	0.381	2	
M12	1.25	3.375	0.827	1.656	0.367	3	
M12	1.75	3.375	0.827	1.656	0.367	3	
M14	1.5	3.594	0.945	1.656	0.429	3	
M14	2	2.594	0.945	1.656	0.429	3	
M16	1.5	3.813	0.945	1.813	0.480	3	
M16	2	3.813	0.945	1.813	0.480	3	
M18	1.5	4.031	1.181	1.813	0.542	3	
M18	2.5	4.031	1.181	1.813	0.542	3	
M20	2.5	4.469	1.181	2.000	0.652	3	
M24	3	4.906	1.417	2.219	0.760	3	

XHP-PIPE (Metric)		XCM-MOLD PIPE				
Tap Size	Pitch	OAL	Thread Length	Neck Length	Shank Dia.	Type
1/16	27	2.125	0.689	0.312	0.313	
1/8	27	2.125	0.752	0.312	0.313	small shank
	27	2.125	0.752	0.312	0.438	large shank
1/4	18	2.438	1.063	0.459	0.563	
3/8	18	2.563	1.063	0.454	0.700	
1/2	14	3.125	1.374	0.579	0.688	
3/4	14	3.250	1.374	0.565	0.906	
1	11-1/2	3.750	1.752	0.678	1.125	

TECHNICAL DATA

TAP DIMENSIONAL INFORMATION



XEN-STI-P							
Tap Size	UNC	UNF	L	L1	Ln	Ød	Type
2	56		1.875	0.252	0.438	0.141	2
4	40		2.000	0.350	0.563	0.141	2
6	32		2.375	0.437	0.688	0.194	2
		40	2.125	0.437	0.688	0.194	2
8	32		2.375	0.437	0.750	0.220	2
10	24		2.500	0.583	0.875	0.255	2
		32	2.500	0.582	0.875	0.255	2
1/4	20		2.719	0.701	1.000	0.318	2
		28	2.719	0.701	1.000	0.318	2
5/16	18		2.938	0.780	1.125	0.381	2
		24	2.938	0.780	1.125	0.381	2
3/8	16		3.375	0.874	1.250	0.367	3
		24	3.156	0.874	1.250	0.367	3
7/16	14		3.594	1.000	1.437	0.429	3
		20	3.375	1.000	1.437	0.429	3
1/2	13		3.813	1.079	1.656	0.480	3
		20	3.594	1.079	1.656	0.480	3

XEN-STI-MB							
Tap Size	UNC	UNF	L	L1	Ln	Ød	Type
2	56		1.875	0.177	0.438	0.141	2
4	40		2.000	0.252	0.563	0.141	2
6	32		2.375	0.311	0.688	0.194	2
		40	2.125	0.311	0.688	0.194	2
8	32		2.375	0.311	0.750	0.220	2
10	24		2.500	0.417	0.875	0.255	2
		32	2.500	0.417	0.875	0.255	2
1/4	20		2.719	0.500	1.000	0.318	2
		28	2.719	0.500	1.000	0.318	2
5/16	18		2.938	0.555	1.125	0.381	2
		24	2.938	0.555	1.125	0.381	2
3/8	16		3.375	0.626	1.250	0.367	3
		24	3.156	0.626	1.250	0.367	3
7/16	14		3.594	0.713	1.437	0.429	3
		20	3.375	0.713	1.437	0.429	3
1/2	13		3.813	0.768	1.656	0.480	3
		20	3.594	0.768	1.656	0.480	3

TECHNICAL DATA

TAP DIMENSIONAL INFORMATION



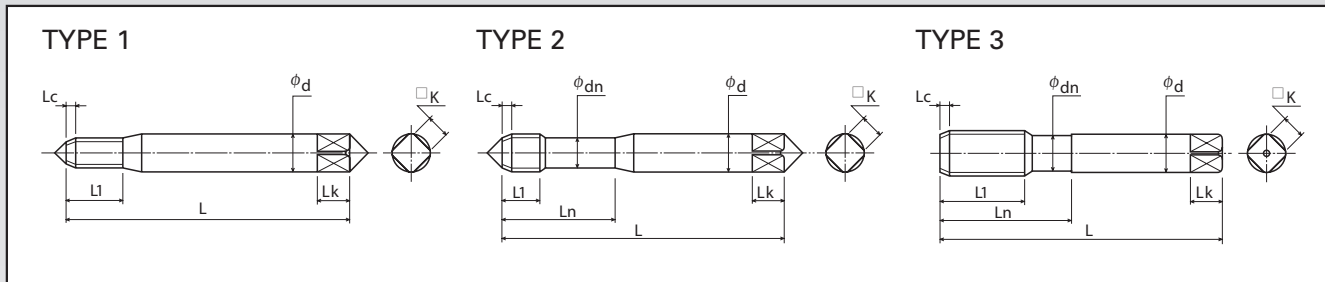
XEN-P		XEN-MB					
Tap Size	UNC	UNF	L	L1	Ln	Ød	Type
2	56		1.750	0.437	0.437	0.141	1
4	40		1.875	0.296	0.562	0.141	2
		48	1.875	0.296	0.562	0.141	2
5	40		1.937	0.299	0.625	0.141	2
6	32		2.000	0.374	0.687	0.141	2
		40	2.000	0.374	0.687	0.141	2
8	32		2.125	0.374	0.750	0.168	2
		36	2.125	0.374	0.750	0.168	2
10	24		2.375	0.500	0.875	0.194	2
		32	2.375	0.500	0.875	0.194	2
1/4	20		2.500	0.594	1.000	0.255	2
		28	2.500	0.594	1.000	0.255	2
5/16	18		2.719	0.662	1.125	0.318	2
		24	2.719	0.654	1.125	0.318	2
3/8	16		2.937	0.752	1.250	0.381	2
		24	2.937	0.752	1.250	0.381	2
7/16	14		3.157	0.858	1.437	0.323	3
		20	3.157	0.858	1.437	0.323	3
1/2	13		3.375	0.921	1.656	0.367	3
		20	3.375	0.921	1.656	0.367	3
5/8	11		3.813	1.091	1.813	0.480	3
		18	3.813	1.091	1.813	0.480	3
3/4	10		4.250	1.201	2.000	0.590	3
		16	4.250	1.201	2.000	0.590	3

XEN-P (Metric)		XEN-MB (Metric)					
Tap Size	Pitch	L	L1	Ln	Ød	Type	
M3	0.5	1.937	0.236	0.625	0.141	2	
M4	0.7	2.125	0.328	0.750	0.168	2	
M5	0.8	2.375	0.376	0.875	0.194	2	
M6	1	2.500	0.472	1.000	0.255	2	
M8	1.25	2.719	0.591	1.125	0.318	2	
M10	1.5	2.938	0.709	1.250	0.381	2	
M12	1.75	3.375	0.827	1.656	0.367	3	

XET-MB							
Tap Size	UNC	UNF	L	L1	Ln	Ød	Type
2	56		1.750	0.437	0.437	0.141	1
4	40		1.875	0.201	0.562	0.141	2
6	32		2.000	0.252	0.687	0.141	2
8	32		2.125	0.252	0.750	0.168	2
10	24		2.375	0.335	0.875	0.194	2
		32	2.375	0.335	0.875	0.194	2
1/4	20		2.500	0.402	1.000	0.255	2
		28	2.500	0.402	1.000	0.255	2
5/16	18		2.719	0.445	1.125	0.318	2
		24	2.719	0.445	1.125	0.318	2
3/8	16		2.937	0.500	1.250	0.381	2
		24	2.937	0.500	1.250	0.381	2
7/16	14		3.157	0.571	1.437	0.323	3
		20	3.157	0.571	1.437	0.323	3
1/2	13		3.375	0.614	1.656	0.367	3
		20	3.375	0.614	1.656	0.367	3

TECHNICAL DATA

TAP DIMENSIONAL INFORMATION



XLT-P							
Tap Size	UNC	UNF	L	L1	Ln	Ød	Type
2	56		4.000	0.844	0.844	0.141	1
			6.000	0.844	0.844	0.141	1
3	48		4.000	0.844	0.844	0.141	1
			6.000	0.844	0.844	0.141	1
4	40		4.000	0.299	1.000	0.141	2
			6.000	0.299	1.000	0.141	2
6	32		6.000	0.374	1.125	0.141	2
8	32		6.000	0.374	1.250	0.168	2
10	24		6.000	0.500	1.375	0.194	2
			6.000	0.500	1.375	0.194	2
1/4	20	32	6.000	0.598	1.625	0.255	2
			6.000	0.598	1.625	0.255	2
5/16	18	28	6.000	0.665	1.750	0.318	2
			6.000	0.665	1.750	0.318	2
3/8	16	24	6.000	0.754	2.000	0.381	2
			6.000	0.754	2.000	0.381	2
7/16	14	20	6.000	0.858	2.000	0.323	3
			6.000	0.858	2.000	0.323	3
1/2	13	20	6.000	0.921	2.000	0.367	3
			6.000	0.921	2.000	0.367	3

XLT-P (Metric)							
Tap Size	Pitch	L	L1	Ln	Ød	Type	
M3	0.5	6.000	0.236	0.844	0.141	2	
M4	0.7	6.000	0.331	1.250	0.168	2	
M5	0.5	6.000	0.378	1.375	0.194	2	
M6	1	6.000	0.472	1.625	0.255	2	
M8	1.25	6.000	0.589	1.750	0.318	2	
M10	1.5	6.000	0.709	2.000	0.381	2	
M12	1.75	6.000	0.827	2.000	0.367	3	

TECHNICAL DATA

TAP DIMENSIONAL INFORMATION



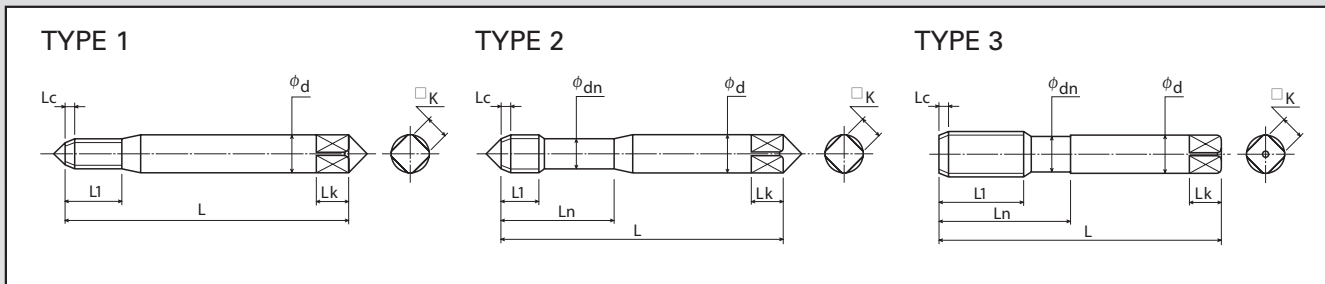
XLT-MB							
Tap Size	UNC	UNF	L	L1	Ln	Ød	Type
2	56		4.000	0.844	0.844	0.141	1
			6.000	0.844	0.844	0.141	1
3	48		4.000	0.844	0.844	0.141	1
			6.000	0.844	0.844	0.141	1
4	40		4.000	0.201	1.000	0.141	2
			6.000	0.201	1.000	0.141	2
6	32		6.000	0.252	1.125	0.141	2
8	32		6.000	0.252	1.250	0.168	2
10	24		6.000	0.335	1.375	0.194	2
			6.000	0.335	1.375	0.194	2
1/4	20		6.000	0.402	1.625	0.255	2
			6.000	0.402	1.625	0.255	2
5/16	18		6.000	0.445	1.750	0.318	2
			6.000	0.445	1.750	0.318	2
3/8	16		6.000	0.500	2.000	0.381	2
			6.000	0.500	2.000	0.381	2
7/16	14		6.000	0.571	2.000	0.323	3
			6.000	0.571	2.000	0.323	3
1/2	13		6.000	0.614	2.000	0.367	3
			6.000	0.614	2.000	0.367	3

XLT-MB (Metric)							
Tap Size	Pitch	L	L1	Ln	Ød	Type	
M3	0.5	6.000	0.158	0.844	0.141	2	
M4	0.7	6.000	0.221	1.250	0.168	2	
M5	0.5	6.000	0.252	1.375	0.194	2	
M6	1	6.000	0.315	1.625	0.255	2	
M8	1.25	6.000	0.394	1.750	0.318	2	
M10	1.5	6.000	0.472	2.000	0.381	2	
M12	1.75	6.000	0.551	2.000	0.367	3	

XDN-P							
Tap Size	UNC	UNF	L	L1	Ln	Ød	Type
4	40		2.205	0.299	0.562	0.141	2
6	32		2.205	0.374	0.687	0.141	2
8	32		2.480	0.374	0.750	0.168	2
10	24		2.756	0.500	0.875	0.194	2
			2.756	0.500	0.875	0.194	2
1/4	20		3.150	0.597	1.000	0.255	2
			3.150	0.597	1.000	0.255	2
5/16	18		3.543	0.665	1.125	0.318	2
			3.543	0.665	1.125	0.318	2
3/8	16		3.937	0.754	1.250	0.381	2
			3.937	0.740	1.250	0.381	2
7/16	14		3.937	0.858	1.437	0.323	3
			3.937	0.858	1.437	0.323	3
1/2	13		4.331	0.921	1.656	0.367	3
			3.937	0.921	1.656	0.367	3
5/8	11		4.331	1.091	1.813	0.480	3
			3.937	1.091	1.813	0.480	3
3/4	10		4.921	1.201	2.000	0.590	3
			4.331	1.201	2.000	0.590	3

TECHNICAL DATA

TAP DIMENSIONAL INFORMATION



XDN-P (Metric)						
Tap Size	Pitch	L	L1	Ln	Ød	Type
M3	0.5	2.205	0.236	0.625	0.141	2
M4	0.7	2.480	0.331	0.750	0.168	2
M5	0.8	2.756	0.378	0.875	0.194	2
M6	1	3.150	0.472	1.000	0.255	2
M8	1.25	3.543	0.589	1.125	0.318	2
M10	1.25	3.937	0.709	1.250	0.381	2
	1.5	3.937	0.709	1.250	0.381	2
M12	1.25	3.937	0.827	1.656	0.367	3
	1.5	3.937	0.827	1.656	0.367	3
	1.75	4.331	0.827	1.656	0.367	3
M14	1.5	3.937	0.945	1.656	0.429	3
	2	4.331	0.945	1.656	0.429	3
M16	1.5	3.937	0.945	1.813	0.480	3
	2	4.331	0.945	1.813	0.480	3
M18	1.5	4.331	1.181	1.813	0.542	3
	2.5	4.921	1.181	1.813	0.542	3
M20	1.5	4.921	1.181	2.000	0.652	3
	2.5	5.512	1.181	2.000	0.652	3

XDN-MB							
Tap Size	UNC	UNF	L	L1	Ln	Ød	Type
4	40		2.205	0.201	0.562	0.141	2
6	32		2.205	0.252	0.687	0.141	2
8	32		2.480	0.252	0.750	0.168	2
10	24		2.756	0.335	0.875	0.194	2
		32	2.756	0.335	0.875	0.194	2
1/4	20		3.150	0.402	1.000	0.255	2
		28	3.150	0.402	1.000	0.255	2
5/16	18		3.543	0.445	1.125	0.318	2
		24	3.543	0.445	1.125	0.318	2
3/8	16		3.937	0.500	1.250	0.381	2
		24	3.937	0.500	1.250	0.381	2
7/16	14		3.937	0.571	1.437	0.323	3
		20	3.937	0.571	1.437	0.323	3
1/2	13		4.331	0.614	1.656	0.367	3
		20	3.937	0.614	1.656	0.367	3
5/8	11		4.331	0.728	1.813	0.480	3
		18	3.937	0.728	1.813	0.480	3
3/4	10		4.921	0.799	2.000	0.590	3
		16	4.331	0.799	2.000	0.590	3

TECHNICAL DATA

TAP DIMENSIONAL INFORMATION



XDN-MB (Metric)						
Tap Size	Pitch	L	L1	Ln	Ød	Type
M6	1	3.150	0.315	1.000	0.255	2
M8	1.25	3.543	0.394	1.125	0.318	2
M10	1.25	3.937	0.472	1.250	0.381	2
	1.5	3.937	0.472	1.250	0.381	2
M12	1.25	3.937	0.551	1.656	0.367	3
	1.5	3.937	0.551	1.656	0.367	3
	1.75	4.331	0.551	1.656	0.367	3
M14	1.5	3.937	0.630	1.656	0.429	3
	2	4.331	0.630	1.656	0.429	3
M16	1.5	3.937	0.630	1.813	0.480	3
	2	4.331	0.630	1.813	0.480	3
M18	1.5	4.331	0.787	1.813	0.542	3
	2.5	4.921	0.787	1.813	0.542	3
M20	1.5	4.921	0.787	2.000	0.652	3
	2.5	5.512	0.787	2.000	0.652	3

XCT-MB							
Tap Size	UNC	UNF	L	L1	Ln	Ød	Type
1/4	20		3.937	0.402	1.000	0.255	2
		28	3.937	0.402	1.000	0.255	2
5/16	18		3.937	0.445	1.125	0.318	2
		24	3.937	0.445	1.125	0.318	2
3/8	16		4.724	0.500	1.250	0.381	2
		24	4.724	0.500	1.250	0.381	2
7/16	14		4.724	0.571	1.437	0.323	3
		20	4.724	0.571	1.437	0.323	3
1/2	13		4.724	0.614	1.656	0.367	3
		20	4.724	0.614	1.656	0.367	3
5/8	11		5.906	0.728	1.813	0.480	3
		18	5.906	0.728	1.813	0.480	3
3/4	10		5.906	0.799	2.000	0.590	3
		16	5.906	0.799	2.000	0.590	3

XCT-MB (Metric)						
Tap Size	Pitch	L	L1	Ln	Ød	Type
M6	1	3.937	0.315	1.000	0.255	2
M8	1.25	3.937	0.394	1.125	0.318	2
M10	1.25	4.724	0.472	1.250	0.381	2
	1.5	4.724	0.472	1.250	0.381	2
M12	1.25	4.724	0.551	1.656	0.367	3
	1.5	4.724	0.551	1.656	0.367	3
	1.75	4.724	0.551	1.656	0.367	3
M14	1.5	5.906	0.630	1.656	0.429	3
	2	5.906	0.630	1.656	0.429	3
M16	1.5	5.906	0.630	1.813	0.480	3
	2	5.906	0.630	1.813	0.480	3
M20	2.5	5.906	0.787	2.000	0.652	3

XCT-PIPE						
Tap Size	TPI	OAL	Thread Length	Neck Length	Shank Dia.	Type
1/16	27	3.543	0.689	0.312	0.313	
1/8	27	3.937	0.752	0.312	0.438	large shank
1/4	18	3.937	1.063	0.459	0.563	
3/8	18	4.331	1.063	0.454	0.700	
1/2	14	5.512	1.374	0.579	0.688	