

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	
36/4	36	Strength (lbs/ft)	670	619	578	543	515	490	469	451	435	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	7.6	8.8	9.9	10.9	11.9	12.9	13.8	14.7	15.6	
	24	Strength (lbs/ft)	728	682	645	615	589	567	548	532	518	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	7.6	8.8	9.9	11.0	12.0	13.1	14.0	15.0	15.9	
	12	Strength (lbs/ft)	861	830	805	784	766	751	738	727	717	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	7.7	8.9	10.0	11.1	12.2	13.3	14.4	15.4	16.4	
	9	Strength (lbs/ft)	925	901	882	866	852	840	830	821	814	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	7.7	8.9	10.1	11.2	12.3	13.4	14.5	15.6	16.6	
	6	Strength (lbs/ft)	1012	998	986	977	969	962	956	951	946	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	7.7	8.9	10.1	11.3	12.4	13.6	14.7	15.8	16.8	
	36/7	36	Strength (lbs/ft)	959	864	790	731	683	637	599	567	540
			Stiffness, G',(10 <sup>3</sup> lbs/in)	45.6	49.5	52.8	55.4	57.5	59.2	60.5	61.6	62.4
24		Strength (lbs/ft)	1039	949	878	821	774	736	703	673	646	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	46.0	50.2	53.7	56.6	59.0	61.0	62.7	64.1	65.3	
12		Strength (lbs/ft)	1254	1178	1117	1068	1028	994	965	940	918	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	47.0	51.7	55.7	59.2	62.3	65.0	67.4	69.5	71.4	
9		Strength (lbs/ft)	1379	1311	1257	1213	1177	1146	1120	1098	1078	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	47.5	52.4	56.7	60.5	63.8	66.9	69.6	72.0	74.2	
6		Strength (lbs/ft)	1585	1533	1491	1456	1428	1404	1383	1365	1350	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	48.3	53.5	58.1	62.3	66.1	69.5	72.6	75.5	78.1	
36/9		36	Strength (lbs/ft)	1377	1242	1133	1044	970	900	838	785	740
			Stiffness, G',(10 <sup>3</sup> lbs/in)	47.4	51.9	55.7	58.9	61.5	63.8	65.6	67.1	68.3
	24	Strength (lbs/ft)	1446	1317	1213	1127	1056	995	944	891	846	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	47.6	52.2	56.2	59.6	62.5	64.9	67.0	68.7	70.2	
	12	Strength (lbs/ft)	1632	1521	1431	1356	1294	1241	1195	1156	1121	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	48.2	53.1	57.5	61.3	64.6	67.6	70.2	72.5	74.5	
	9	Strength (lbs/ft)	1740	1641	1560	1492	1435	1387	1346	1310	1278	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	48.5	53.6	58.1	62.1	65.7	68.9	71.7	74.3	76.6	
	6	Strength (lbs/ft)	1924	1845	1779	1725	1679	1640	1606	1577	1551	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	49.0	54.3	59.1	63.4	67.3	70.8	74.1	77.0	79.7	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness greater than or equal to 1/4 inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	
36/4	36	Strength (lbs/ft)	755	712	677	647	621	599	579	562	547	
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.4	17.0	18.4	19.8	21.2	22.4	23.6	24.7	25.7	
	24	Strength (lbs/ft)	848	811	780	753	730	710	693	678	664	
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.5	17.2	18.7	20.2	21.6	22.9	24.2	25.4	26.6	
	12	Strength (lbs/ft)	1061	1037	1016	999	984	971	959	949	940	
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.8	17.5	19.1	20.7	22.3	23.8	25.2	26.6	28.0	
	9	Strength (lbs/ft)	1158	1140	1125	1112	1101	1091	1083	1075	1068	
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.9	17.6	19.3	21.0	22.6	24.1	25.6	27.1	28.5	
	6	Strength (lbs/ft)	1285	1275	1267	1259	1253	1248	1243	1239	1235	
		Stiffness, $G', (10^3 \text{ lbs/in})$	16.0	17.8	19.6	21.3	22.9	24.6	26.2	27.7	29.2	
	36/7	36	Strength (lbs/ft)	1030	956	895	844	797	757	722	692	665
			Stiffness, $G', (10^3 \text{ lbs/in})$	73.3	75.9	77.7	79.1	80.0	80.7	81.0	81.2	81.2
24		Strength (lbs/ft)	75	78	80	82	83	85	85	86	87	
		Stiffness, $G', (10^3 \text{ lbs/in})$	13.4	12.8	12.5	12.2	12.0	11.8	11.7	11.6	11.6	
12		Strength (lbs/ft)	1486	1426	1377	1336	1301	1270	1244	1221	1200	
		Stiffness, $G', (10^3 \text{ lbs/in})$	78.5	82.5	85.9	88.7	91.2	93.3	95.1	96.7	98.1	
9		Strength (lbs/ft)	1675	1623	1580	1543	1512	1485	1462	1442	1423	
		Stiffness, $G', (10^3 \text{ lbs/in})$	80.3	84.7	88.6	91.9	94.8	97.3	99.6	101.6	103.5	
6		Strength (lbs/ft)	1984	1945	1912	1884	1861	1840	1823	1807	1793	
		Stiffness, $G', (10^3 \text{ lbs/in})$	83.0	88.0	92.5	96.4	100.0	103.2	106.1	108.7	111.0	
36/9		36	Strength (lbs/ft)	1462	1350	1257	1178	1103	1036	979	929	886
			Stiffness, $G', (10^3 \text{ lbs/in})$	78.5	81.9	84.6	86.6	88.2	89.3	90.1	90.7	91.0
	24	Strength (lbs/ft)	1574	1467	1378	1303	1239	1184	1131	1081	1038	
		Stiffness, $G', (10^3 \text{ lbs/in})$	79.5	83.2	86.2	88.5	90.5	92.0	93.2	94.1	94.8	
	12	Strength (lbs/ft)	1877	1786	1710	1645	1590	1541	1499	1462	1429	
		Stiffness, $G', (10^3 \text{ lbs/in})$	81.8	86.2	89.9	93.1	95.8	98.2	100.2	101.9	103.5	
	9	Strength (lbs/ft)	2053	1972	1904	1846	1796	1752	1714	1681	1651	
		Stiffness, $G', (10^3 \text{ lbs/in})$	83.0	87.7	91.8	95.4	98.5	101.2	103.6	105.8	107.7	
	6	Strength (lbs/ft)	2346	2283	2230	2184	2145	2110	2080	2053	2029	
		Stiffness, $G', (10^3 \text{ lbs/in})$	84.8	90.1	94.7	98.8	102.5	105.8	108.7	111.4	113.8	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness greater than or equal to 1/4 inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	
36/4	36	Strength (lbs/ft)	822	786	756	729	706	685	667	651	636	
		Stiffness, $G', (10^3 \text{ lbs/in})$	33.7	35.8	37.8	39.6	41.2	42.7	44.0	45.3	46.4	
	24	Strength (lbs/ft)	948	917	890	866	845	827	811	796	783	
		Stiffness, $G', (10^3 \text{ lbs/in})$	34.4	36.7	38.9	40.9	42.8	44.5	46.1	47.7	49.1	
	12	Strength (lbs/ft)	1236	1215	1198	1182	1169	1157	1146	1137	1128	
		Stiffness, $G', (10^3 \text{ lbs/in})$	35.8	38.4	41.0	43.4	45.7	47.9	50.0	52.0	54.0	
	9	Strength (lbs/ft)	1366	1352	1339	1327	1317	1309	1301	1294	1287	
		Stiffness, $G', (10^3 \text{ lbs/in})$	36.3	39.2	41.8	44.4	46.9	49.3	51.6	53.8	55.9	
	6	Strength (lbs/ft)	1534	1526	1519	1513	1507	1503	1498	1494	1491	
		Stiffness, $G', (10^3 \text{ lbs/in})$	37.1	40.1	42.9	45.7	48.4	51.0	53.5	55.9	58.3	
	36/7	36	Strength (lbs/ft)	1086	1025	974	926	885	848	817	789	764
			Stiffness, $G', (10^3 \text{ lbs/in})$	115.0	115.0	114.7	114.0	113.2	112.3	111.2	110.1	109.1
24		Strength (lbs/ft)	1246	1188	1139	1097	1061	1029	1000	976	952	
		Stiffness, $G', (10^3 \text{ lbs/in})$	119.8	120.6	120.9	121.0	120.8	120.4	120.0	119.4	118.9	
12		Strength (lbs/ft)	1680	1631	1589	1553	1522	1494	1470	1448	1429	
		Stiffness, $G', (10^3 \text{ lbs/in})$	131.0	133.3	135.2	136.8	138.0	139.0	139.8	140.4	141.0	
9		Strength (lbs/ft)	1928	1885	1848	1816	1789	1764	1743	1724	1706	
		Stiffness, $G', (10^3 \text{ lbs/in})$	136.5	139.6	142.3	144.5	146.4	148.0	149.4	150.6	151.6	
6		Strength (lbs/ft)	2331	2299	2271	2247	2226	2208	2192	2177	2164	
		Stiffness, $G', (10^3 \text{ lbs/in})$	144.7	148.9	152.6	155.8	158.7	161.2	163.4	165.4	167.2	
36/9		36	Strength (lbs/ft)	1520	1426	1346	1268	1199	1139	1087	1041	1000
			Stiffness, $G', (10^3 \text{ lbs/in})$	128.4	129.3	129.6	129.4	129.1	128.3	127.5	126.6	125.5
	24	Strength (lbs/ft)	1670	1580	1504	1437	1379	1327	1275	1229	1189	
		Stiffness, $G', (10^3 \text{ lbs/in})$	131.6	133.0	133.9	134.4	134.5	134.4	134.1	133.6	133.0	
	12	Strength (lbs/ft)	2079	2002	1936	1878	1828	1784	1744	1709	1677	
		Stiffness, $G', (10^3 \text{ lbs/in})$	139.3	142.1	144.3	146.0	147.4	148.5	149.4	150.1	150.6	
	9	Strength (lbs/ft)	2316	2248	2188	2137	2092	2052	2017	1985	1956	
		Stiffness, $G', (10^3 \text{ lbs/in})$	143.3	146.7	149.6	152.0	154.0	155.7	157.1	158.3	159.3	
	6	Strength (lbs/ft)	2713	2659	2613	2572	2537	2506	2478	2453	2430	
		Stiffness, $G', (10^3 \text{ lbs/in})$	149.5	153.9	157.7	161.0	163.9	166.4	168.7	170.7	172.4	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness greater than or equal to 1/4 inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	
36/4	36	Strength (lbs/ft)	780	754	731	711	692	676	662	649	637	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	58.6	60.6	62.4	64.0	65.4	66.6	67.7	68.7	69.5	
	24	Strength (lbs/ft)	922	898	878	860	844	830	817	806	795	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	61.0	63.5	65.7	67.8	69.6	71.3	72.9	74.3	75.6	
	12	Strength (lbs/ft)	1239	1225	1212	1200	1190	1181	1173	1166	1159	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	65.7	69.0	72.1	75.0	77.8	80.3	82.8	85.0	87.2	
	9	Strength (lbs/ft)	1380	1369	1360	1352	1345	1338	1332	1327	1322	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	67.7	71.3	74.8	78.0	81.1	84.0	86.8	89.5	92.0	
	6	Strength (lbs/ft)	1556	1550	1545	1541	1537	1534	1531	1528	1525	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	70.2	74.3	78.2	81.9	85.5	88.8	92.1	95.2	98.2	
	36/7	36	Strength (lbs/ft)	1004	960	921	884	852	824	799	777	756
			Stiffness, G',(10 <sup>3</sup> lbs/in)	147.8	145.7	143.5	141.3	139.1	137.0	135.0	133.0	131.1
24		Strength (lbs/ft)	1181	1138	1102	1070	1042	1017	995	975	957	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	157.2	155.8	154.4	152.9	151.4	149.9	148.5	147.0	145.7	
12		Strength (lbs/ft)	1656	1621	1590	1563	1539	1518	1499	1482	1466	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	179.1	179.6	179.9	180.1	180.1	180.0	179.8	179.6	179.4	
9		Strength (lbs/ft)	1927	1896	1869	1845	1825	1806	1789	1774	1760	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	190.2	191.6	192.8	193.7	194.4	195.0	195.4	195.8	196.1	
6		Strength (lbs/ft)	2360	2337	2318	2300	2285	2271	2259	2248	2238	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	206.9	209.6	212.0	214.1	215.8	217.4	218.8	220.0	221.1	
36/9		36	Strength (lbs/ft)	1378	1308	1241	1181	1129	1082	1041	1004	971
			Stiffness, G',(10 <sup>3</sup> lbs/in)	170.3	168.5	166.5	164.4	162.2	160.0	157.8	155.6	153.5
	24	Strength (lbs/ft)	1546	1480	1422	1371	1326	1285	1244	1207	1174	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	177.0	176.0	174.7	173.2	171.7	170.0	168.4	166.8	165.2	
	12	Strength (lbs/ft)	2004	1947	1898	1854	1815	1780	1749	1721	1695	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	193.4	194.0	194.4	194.5	194.4	194.2	193.9	193.5	193.0	
	9	Strength (lbs/ft)	2269	2219	2174	2136	2101	2070	2042	2017	1994	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	201.9	203.5	204.6	205.5	206.1	206.6	206.9	207.1	207.3	
	6	Strength (lbs/ft)	2707	2668	2634	2604	2577	2553	2532	2512	2494	
		Stiffness, G',(10 <sup>3</sup> lbs/in)	215.3	218.1	220.4	222.4	224.1	225.5	226.8	227.9	228.9	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness greater than or equal to 1/4 inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	
36/4	36	Strength (lbs/ft)	596	550	513	483	457	436	417	401	387	
		Stiffness, $G', (10^3 \text{ lbs/in})$	7.5	8.6	9.7	10.7	11.6	12.6	13.4	14.3	15.1	
	24	Strength (lbs/ft)	647	607	574	547	524	504	488	473	460	
		Stiffness, $G', (10^3 \text{ lbs/in})$	7.6	8.7	9.8	10.8	11.8	12.8	13.7	14.7	15.5	
	12	Strength (lbs/ft)	765	738	716	697	682	668	657	646	638	
		Stiffness, $G', (10^3 \text{ lbs/in})$	7.6	8.8	9.9	11.1	12.1	13.2	14.2	15.2	16.2	
	9	Strength (lbs/ft)	822	801	784	770	758	747	738	731	724	
		Stiffness, $G', (10^3 \text{ lbs/in})$	7.7	8.9	10.0	11.1	12.3	13.3	14.4	15.5	16.5	
	6	Strength (lbs/ft)	900	887	877	868	861	855	850	845	841	
		Stiffness, $G', (10^3 \text{ lbs/in})$	7.7	8.9	10.1	11.3	12.4	13.5	14.6	15.7	16.8	
	36/7	36	Strength (lbs/ft)	852	768	702	650	607	567	533	505	480
			Stiffness, $G', (10^3 \text{ lbs/in})$	42.9	46.0	48.5	50.5	52.0	53.2	54.1	54.8	55.4
24		Strength (lbs/ft)	923	843	781	730	689	654	625	599	575	
		Stiffness, $G', (10^3 \text{ lbs/in})$	43.7	47.2	50.2	52.5	54.5	56.1	57.5	58.6	59.6	
12		Strength (lbs/ft)	1115	1047	994	950	914	884	859	837	817	
		Stiffness, $G', (10^3 \text{ lbs/in})$	45.5	49.8	53.5	56.7	59.6	62.1	64.3	66.3	68.1	
9		Strength (lbs/ft)	1226	1166	1118	1079	1047	1020	997	977	960	
		Stiffness, $G', (10^3 \text{ lbs/in})$	46.3	50.9	55.0	58.6	61.8	64.6	67.2	69.6	71.7	
6		Strength (lbs/ft)	1410	1363	1326	1296	1270	1249	1231	1215	1201	
		Stiffness, $G', (10^3 \text{ lbs/in})$	47.5	52.5	57.0	61.1	64.8	68.1	71.2	74.0	76.5	
36/9		36	Strength (lbs/ft)	1224	1103	1007	927	862	800	745	698	658
			Stiffness, $G', (10^3 \text{ lbs/in})$	45.1	48.9	51.9	54.4	56.4	57.9	59.2	60.2	60.9
	24	Strength (lbs/ft)	1285	1170	1078	1002	938	885	839	793	753	
		Stiffness, $G', (10^3 \text{ lbs/in})$	45.6	49.6	52.9	55.7	58.1	60.0	61.6	62.9	64.1	
	12	Strength (lbs/ft)	1450	1352	1272	1206	1150	1103	1063	1028	997	
		Stiffness, $G', (10^3 \text{ lbs/in})$	46.7	51.3	55.2	58.7	61.7	64.4	66.7	68.8	70.7	
	9	Strength (lbs/ft)	1547	1459	1387	1327	1277	1234	1197	1165	1137	
		Stiffness, $G', (10^3 \text{ lbs/in})$	47.3	52.1	56.3	60.1	63.4	66.4	69.0	71.4	73.6	
	6	Strength (lbs/ft)	1711	1640	1582	1534	1493	1459	1429	1403	1380	
		Stiffness, $G', (10^3 \text{ lbs/in})$	48.1	53.3	57.9	62.0	65.8	69.2	72.3	75.1	77.7	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range of 3/16 inch to 1/4 inch for X-EDNK22 fasteners and in the range of 3/16 inch to 3/8 inch for X-EDN19 fasteners.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)								
			4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
36/4	36	Strength (lbs/ft)	690	651	619	591	568	547	530	514	500
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.0	16.5	17.8	19.1	20.3	21.5	22.5	23.5	24.5
	24	Strength (lbs/ft)	775	741	713	688	668	649	634	620	607
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.2	16.8	18.2	19.6	21.0	22.2	23.4	24.6	25.7
	12	Strength (lbs/ft)	969	947	929	913	899	887	877	867	859
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.6	17.3	18.9	20.5	22.0	23.5	24.9	26.3	27.6
	9	Strength (lbs/ft)	969	947	929	913	899	887	877	867	859
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.8	17.5	19.2	20.8	22.4	23.9	25.4	26.9	28.3
	6	Strength (lbs/ft)	969	947	929	913	899	887	877	867	859
		Stiffness, $G', (10^3 \text{ lbs/in})$	16.0	17.7	19.5	21.2	22.8	24.5	26.0	27.6	29.1
36/7	36	Strength (lbs/ft)	941	873	818	772	729	692	660	632	608
		Stiffness, $G', (10^3 \text{ lbs/in})$	66.1	67.7	68.9	69.6	70.1	70.3	70.4	70.4	70.3
	24	Strength (lbs/ft)	1054	990	937	892	855	823	795	771	747
		Stiffness, $G', (10^3 \text{ lbs/in})$	68.8	71.1	72.9	74.2	75.3	76.1	76.7	77.2	77.5
	12	Strength (lbs/ft)	1358	1304	1259	1221	1189	1161	1137	1116	1098
		Stiffness, $G', (10^3 \text{ lbs/in})$	74.6	78.2	81.2	83.8	86.1	88.0	89.7	91.3	92.6
	9	Strength (lbs/ft)	1531	1484	1444	1411	1383	1358	1337	1318	1302
		Stiffness, $G', (10^3 \text{ lbs/in})$	77.2	81.4	85.0	88.1	90.9	93.3	95.5	97.5	99.3
	6	Strength (lbs/ft)	1813	1778	1748	1723	1701	1682	1666	1652	1639
		Stiffness, $G', (10^3 \text{ lbs/in})$	80.9	85.8	90.2	94.0	97.5	100.6	103.4	106.0	108.4
36/9	36	Strength (lbs/ft)	1335	1233	1148	1076	1008	947	894	849	810
		Stiffness, $G', (10^3 \text{ lbs/in})$	71.9	74.2	75.9	77.1	77.9	78.4	78.7	78.8	78.8
	24	Strength (lbs/ft)	1438	1340	1259	1191	1132	1082	1033	988	949
		Stiffness, $G', (10^3 \text{ lbs/in})$	73.7	76.5	78.7	80.4	81.7	82.7	83.5	84.1	84.5
	12	Strength (lbs/ft)	1716	1633	1563	1504	1453	1409	1370	1336	1306
		Stiffness, $G', (10^3 \text{ lbs/in})$	77.7	81.6	84.8	87.6	90.0	92.1	93.9	95.5	96.8
	9	Strength (lbs/ft)	1876	1802	1740	1687	1642	1602	1567	1537	1509
		Stiffness, $G', (10^3 \text{ lbs/in})$	79.7	84.0	87.8	91.0	93.9	96.4	98.7	100.7	102.5
	6	Strength (lbs/ft)	2144	2086	2038	1996	1960	1929	1901	1877	1855
		Stiffness, $G', (10^3 \text{ lbs/in})$	82.5	87.5	91.9	95.9	99.4	102.6	105.4	108.0	110.4

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range of 3/16 inch to 1/4 inch for X-EDNK22 fasteners and in the range of 3/16 inch to 3/8 inch for X-EDN19 fasteners.

1.5 in. deck - 36 in. wide - 6 in. flute spacing Thickness = 0.048 in.  
 Support connection: Hilti X-EDN19, X-EDNK22 Limit States Design - FACTORED RESISTANCE  
 Side-lap connection: Hilti SLC  $\Phi = 0.60$

**ICC-ES AC43/SDI METHOD - IMPERIAL**

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)								
			5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
36/4	36	Strength (lbs/ft)	773	740	712	687	666	647	630	615	602
		Stiffness, G', (10 <sup>3</sup> lbs/in)	31.9	33.8	35.5	37.0	38.4	39.7	40.9	41.9	42.9
	24	Strength (lbs/ft)	893	864	839	818	799	782	767	754	742
		Stiffness, G', (10 <sup>3</sup> lbs/in)	33.1	35.2	37.2	39.0	40.8	42.4	43.9	45.3	46.6
	12	Strength (lbs/ft)	997	972	951	932	916	901	888	876	866
		Stiffness, G', (10 <sup>3</sup> lbs/in)	35.1	37.7	40.2	42.5	44.8	46.9	48.9	50.9	52.8
	9	Strength (lbs/ft)	997	972	951	932	922	913	906	899	892
		Stiffness, G', (10 <sup>3</sup> lbs/in)	35.9	38.6	41.3	43.8	46.2	48.6	50.8	53.0	55.0
	6	Strength (lbs/ft)	1109	1100	1092	1086	1080	1074	1069	1065	1061
		Stiffness, G', (10 <sup>3</sup> lbs/in)	36.8	39.8	42.6	45.4	48.0	50.6	53.1	55.5	57.8
36/7	36	Strength (lbs/ft)	1020	964	916	874	835	801	772	746	723
		Stiffness, G', (10 <sup>3</sup> lbs/in)	98.7	98.2	97.4	96.7	95.7	94.8	93.8	92.9	91.9
	24	Strength (lbs/ft)	1174	1120	1075	1036	1002	973	947	924	903
		Stiffness, G', (10 <sup>3</sup> lbs/in)	105.9	106.2	106.3	106.2	106.0	105.6	105.3	104.8	104.4
	12	Strength (lbs/ft)	1588	1543	1504	1471	1443	1418	1395	1376	1358
		Stiffness, G', (10 <sup>3</sup> lbs/in)	121.7	123.9	125.7	127.1	128.3	129.4	130.2	131.0	131.6
	9	Strength (lbs/ft)	1588	1543	1504	1471	1443	1418	1395	1376	1358
		Stiffness, G', (10 <sup>3</sup> lbs/in)	129.2	132.2	134.7	136.9	138.8	140.4	141.9	143.2	144.3
	6	Strength (lbs/ft)	1613	1583	1558	1536	1517	1500	1485	1472	1460
		Stiffness, G', (10 <sup>3</sup> lbs/in)	139.9	144.0	147.6	150.8	153.6	156.2	158.4	160.5	162.4
36/9	36	Strength (lbs/ft)	1422	1335	1261	1190	1127	1071	1023	980	942
		Stiffness, G', (10 <sup>3</sup> lbs/in)	111.5	111.4	110.9	110.2	109.3	108.3	107.3	106.2	105.2
	24	Strength (lbs/ft)	1567	1484	1413	1351	1298	1251	1204	1162	1124
		Stiffness, G', (10 <sup>3</sup> lbs/in)	116.8	117.5	117.7	117.7	117.5	117.1	116.6	116.1	115.5
	12	Strength (lbs/ft)	1957	1886	1826	1773	1727	1686	1650	1617	1588
		Stiffness, G', (10 <sup>3</sup> lbs/in)	128.9	131.2	133.1	134.6	135.8	136.8	137.6	138.2	138.8
	9	Strength (lbs/ft)	1957	1886	1826	1773	1727	1686	1650	1617	1588
		Stiffness, G', (10 <sup>3</sup> lbs/in)	134.8	137.9	140.5	142.7	144.6	146.2	147.6	148.9	149.9
	6	Strength (lbs/ft)	1957	1886	1826	1782	1750	1722	1697	1675	1655
		Stiffness, G', (10 <sup>3</sup> lbs/in)	143.6	147.8	151.5	154.7	157.5	160.1	162.2	164.2	166.0

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range of 3/16 inch to 1/4 inch for X-EDNK22 fasteners and in the range of 3/16 inch to 3/8 inch for X-EDN19 fasteners.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: X-EDNK22

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)								
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
36/4	36	Strength (lbs/ft)	479	440	407	381	359	340	324	309	294
		Stiffness, G', (10 <sup>3</sup> lbs/in)	7.5	8.6	9.7	10.7	11.6	12.6	13.4	14.3	15.1
	24	Strength (lbs/ft)	516	480	450	426	405	388	373	360	349
		Stiffness, G', (10 <sup>3</sup> lbs/in)	7.6	8.7	9.8	10.8	11.8	12.8	13.7	14.7	15.5
	12	Strength (lbs/ft)	605	578	556	538	523	510	499	489	480
		Stiffness, G', (10 <sup>3</sup> lbs/in)	7.6	8.8	9.9	11.1	12.1	13.2	14.2	15.2	16.2
	9	Strength (lbs/ft)	650	629	611	597	584	573	564	556	549
		Stiffness, G', (10 <sup>3</sup> lbs/in)	7.7	8.9	10.0	11.1	12.3	13.3	14.4	15.5	16.5
	6	Strength (lbs/ft)	717	703	691	682	674	667	661	655	651
		Stiffness, G', (10 <sup>3</sup> lbs/in)	7.7	8.9	10.1	11.3	12.4	13.5	14.6	15.7	16.8
36/7	36	Strength (lbs/ft)	771	698	642	596	559	527	497	472	451
		Stiffness, G', (10 <sup>3</sup> lbs/in)	42.9	46.0	48.5	50.5	52.0	53.2	54.1	54.8	55.4
	24	Strength (lbs/ft)	843	774	721	677	642	612	587	565	546
		Stiffness, G', (10 <sup>3</sup> lbs/in)	43.7	47.2	50.2	52.5	54.5	56.1	57.5	58.6	59.6
	12	Strength (lbs/ft)	1032	976	932	895	866	840	819	801	785
		Stiffness, G', (10 <sup>3</sup> lbs/in)	45.5	49.8	53.5	56.7	59.6	62.1	64.3	66.3	68.1
	9	Strength (lbs/ft)	1138	1090	1051	1020	993	971	953	937	922
		Stiffness, G', (10 <sup>3</sup> lbs/in)	46.3	50.9	55.0	58.6	61.8	64.6	67.2	69.6	71.7
	6	Strength (lbs/ft)	1308	1272	1243	1220	1201	1184	1170	1158	1148
		Stiffness, G', (10 <sup>3</sup> lbs/in)	47.5	52.5	57.0	61.1	64.8	68.1	71.2	74.0	76.5
36/9	36	Strength (lbs/ft)	1095	991	907	838	781	732	683	642	607
		Stiffness, G', (10 <sup>3</sup> lbs/in)	45.1	48.9	51.9	54.4	56.4	57.9	59.2	60.2	60.9
	24	Strength (lbs/ft)	1156	1058	979	913	859	813	773	739	705
		Stiffness, G', (10 <sup>3</sup> lbs/in)	45.6	49.6	52.9	55.7	58.1	60.0	61.6	62.9	64.1
	12	Strength (lbs/ft)	1320	1238	1172	1116	1070	1031	997	967	942
		Stiffness, G', (10 <sup>3</sup> lbs/in)	46.7	51.3	55.2	58.7	61.7	64.4	66.7	68.8	70.7
	9	Strength (lbs/ft)	1413	1342	1283	1234	1193	1157	1127	1101	1078
		Stiffness, G', (10 <sup>3</sup> lbs/in)	47.3	52.1	56.3	60.1	63.4	66.4	69.0	71.4	73.6
	6	Strength (lbs/ft)	1567	1511	1466	1428	1396	1369	1346	1325	1307
		Stiffness, G', (10 <sup>3</sup> lbs/in)	48.1	53.3	57.9	62.0	65.8	69.2	72.3	75.1	77.7

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range 1/8 inch to less than 3/16-inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: X-EDNK22

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)								
			4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
36/4	36	Strength (lbs/ft)	492	460	433	411	391	374	358	343	330
		Stiffness, G', (10 <sup>3</sup> lbs/in)	15.0	16.5	17.8	19.1	20.3	21.5	22.5	23.5	24.5
	24	Strength (lbs/ft)	544	514	490	469	451	436	422	410	400
		Stiffness, G', (10 <sup>3</sup> lbs/in)	15.2	16.8	18.2	19.6	21.0	22.2	23.4	24.6	25.7
	12	Strength (lbs/ft)	672	651	632	617	603	591	581	572	564
		Stiffness, G', (10 <sup>3</sup> lbs/in)	15.6	17.3	18.9	20.5	22.0	23.5	24.9	26.3	27.6
	9	Strength (lbs/ft)	739	721	706	693	682	673	664	657	650
		Stiffness, G', (10 <sup>3</sup> lbs/in)	15.8	17.5	19.2	20.8	22.4	23.9	25.4	26.9	28.3
	6	Strength (lbs/ft)	835	824	814	806	798	792	787	782	777
		Stiffness, G', (10 <sup>3</sup> lbs/in)	16.0	17.7	19.5	21.2	22.8	24.5	26.0	27.6	29.1
36/7	36	Strength (lbs/ft)	899	838	787	745	710	676	647	622	600
		Stiffness, G', (10 <sup>3</sup> lbs/in)	66.1	67.7	68.9	69.6	70.1	70.3	70.4	70.4	70.3
	24	Strength (lbs/ft)	1017	959	911	872	838	809	784	762	742
		Stiffness, G', (10 <sup>3</sup> lbs/in)	68.8	71.1	72.9	74.2	75.3	76.1	76.7	77.2	77.5
	12	Strength (lbs/ft)	1327	1280	1241	1208	1180	1156	1135	1117	1101
		Stiffness, G', (10 <sup>3</sup> lbs/in)	74.6	78.2	81.2	83.8	86.1	88.0	89.7	91.3	92.6
	9	Strength (lbs/ft)	1499	1458	1425	1397	1373	1352	1334	1318	1304
		Stiffness, G', (10 <sup>3</sup> lbs/in)	77.2	81.4	85.0	88.1	90.9	93.3	95.5	97.5	99.3
	6	Strength (lbs/ft)	1767	1738	1714	1694	1677	1662	1649	1637	1627
		Stiffness, G', (10 <sup>3</sup> lbs/in)	80.9	85.8	90.2	94.0	97.5	100.6	103.4	106.0	108.4
36/9	36	Strength (lbs/ft)	1259	1166	1089	1024	967	911	863	822	785
		Stiffness, G', (10 <sup>3</sup> lbs/in)	71.9	74.2	75.9	77.1	77.9	78.4	78.7	78.8	78.8
	24	Strength (lbs/ft)	1366	1279	1206	1144	1091	1045	1005	969	933
		Stiffness, G', (10 <sup>3</sup> lbs/in)	73.7	76.5	78.7	80.4	81.7	82.7	83.5	84.1	84.5
	12	Strength (lbs/ft)	1650	1578	1517	1465	1421	1382	1348	1318	1292
		Stiffness, G', (10 <sup>3</sup> lbs/in)	77.7	81.6	84.8	87.6	90.0	92.1	93.9	95.5	96.8
	9	Strength (lbs/ft)	1811	1747	1694	1649	1610	1576	1546	1520	1496
		Stiffness, G', (10 <sup>3</sup> lbs/in)	79.7	84.0	87.8	91.0	93.9	96.4	98.7	100.7	102.5
	6	Strength (lbs/ft)	2069	2022	1982	1948	1919	1893	1871	1851	1833
		Stiffness, G', (10 <sup>3</sup> lbs/in)	82.5	87.5	91.9	95.9	99.4	102.6	105.4	108.0	110.4

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range 1/8 inch to less than 3/16-inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: X-EDNK22

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	
36/4	36	Strength (lbs/ft)	589	560	535	514	495	478	464	449	435	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	31.9	33.8	35.5	37.0	38.4	39.7	40.9	41.9	42.9	
	24	Strength (lbs/ft)	671	645	622	603	585	570	557	545	534	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	33.1	35.2	37.2	39.0	40.8	42.4	43.9	45.3	46.6	
	12	Strength (lbs/ft)	871	852	836	822	810	799	789	780	772	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	35.1	37.7	40.2	42.5	44.8	46.9	48.9	50.9	52.8	
	9	Strength (lbs/ft)	970	956	943	932	922	913	906	899	892	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	35.9	38.6	41.3	43.8	46.2	48.6	50.8	53.0	55.0	
	6	Strength (lbs/ft)	1109	1100	1092	1086	1080	1074	1069	1065	1061	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	36.8	39.8	42.6	45.4	48.0	50.6	53.1	55.5	57.8	
	36/7	36	Strength (lbs/ft)	911	868	832	801	774	751	730	712	694
			Stiffness, G', (10 <sup>3</sup> lbs/in)	98.7	98.2	97.4	96.7	95.7	94.8	93.8	92.9	91.9
24		Strength (lbs/ft)	1075	1035	1002	973	948	926	907	889	874	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	105.9	106.2	106.3	106.2	106.0	105.6	105.3	104.8	104.4	
12		Strength (lbs/ft)	1488	1459	1433	1411	1392	1375	1361	1347	1335	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	121.7	123.9	125.7	127.1	128.3	129.4	130.2	131.0	131.6	
9		Strength (lbs/ft)	1701	1677	1657	1639	1624	1610	1598	1587	1578	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	129.2	132.2	134.7	136.9	138.8	140.4	141.9	143.2	144.3	
6		Strength (lbs/ft)	2008	1993	1980	1968	1959	1950	1942	1935	1929	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	139.9	144.0	147.6	150.8	153.6	156.2	158.4	160.5	162.4	
36/9		36	Strength (lbs/ft)	1222	1156	1099	1051	1008	969	931	897	867
			Stiffness, G', (10 <sup>3</sup> lbs/in)	111.5	111.4	110.9	110.2	109.3	108.3	107.3	106.2	105.2
	24	Strength (lbs/ft)	1376	1315	1262	1217	1177	1142	1111	1083	1058	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	116.8	117.5	117.7	117.7	117.5	117.1	116.6	116.1	115.5	
	12	Strength (lbs/ft)	1771	1724	1682	1646	1615	1587	1562	1540	1520	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	128.9	131.2	133.1	134.6	135.8	136.8	137.6	138.2	138.8	
	9	Strength (lbs/ft)	1982	1942	1908	1878	1852	1828	1808	1789	1772	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	134.8	137.9	140.5	142.7	144.6	146.2	147.6	148.9	149.9	
	6	Strength (lbs/ft)	2298	2272	2248	2228	2210	2194	2180	2168	2156	
		Stiffness, G', (10 <sup>3</sup> lbs/in)	143.6	147.8	151.5	154.7	157.5	160.1	162.2	164.2	166.0	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range 1/8 inch to less than 3/16-inch.