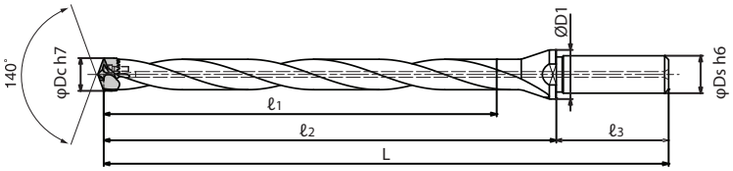
12X Diameter SMD

12X Diameter

NEW



■ SMD INCH BODIES (12X Diameter)

○ Available 1st Quarter 2017

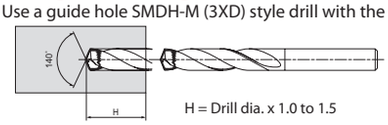
12X Diameter Body No.	Stock	Drill Tip Diameter øDc (inch / *mm*)		øDs	øD1	L	ℓ1 max depth	ℓ2	ℓ3	Screw	Wrench
SMDH055-12D	○	0.5315 - 0.5709	*13.50- 14.50*	0.750	0.094	9.480	6.614	7.480	2.000	BXD02208IP	TRDR08IP
SMDH059-12D	○	0.5713 - 0.6102	*14.51- 15.50*	0.750	0.094	9.965	7.087	7.965	2.000	BXD02208IP	TRDR08IP
SMDH063-12D	○	0.6106 - 0.6496	*15.51 - 16.50*	0.750	0.118	10.449	7.559	8.449	2.000	BXD02509IP	TRDR10IP
SMDH067-12D	○	0.6500 - 0.6890	*16.51 - 17.50*	0.750	0.118	10.937	8.031	8.937	2.000	BXD02509IP	TRDR10IP
SMDH071-12D	○	0.6894 - 0.7283	*17.51 - 18.50*	0.750	0.138	11.417	8.504	9.417	2.000	BXD02509IP	TRDR10IP
SMDH075-12D	○	0.7287 - 0.7677	*18.51- 19.50*	1.000	0.138	12.154	8.976	9.904	2.250	BXD03011IP	TRDR15IP
SMDH079-12D	○	0.7681 - 0.8070	*19.51- 20.50*	1.000	0.157	12.634	9.449	10.384	2.250	BXD03011IP	TRDR15IP
SMDH083-12D	○	0.8074 - 0.8465	*20.51 - 21.50*	1.000	0.157	13.118	9.921	10.868	2.250	BXD03011IP	TRDR15IP
SMDH087-12D	○	0.8469 - 0.8976	*21.51 - 22.80*	1.000	0.177	13.626	10.394	11.376	2.250	BXD03512IP	TRDR15IP
SMDH091-12D	○	0.8980 - 0.9370	*22.81 - 23.80*	1.000	0.177	14.165	10.866	11.915	2.250	BXD03512IP	TRDR15IP
SMDH096-12D	○	0.9374 - 0.9764	*23.81 - 24.80*	1.000	0.197	14.638	11.339	12.388	2.250	BXD03512IP	TRDR15IP
SMDH100-12D	○	0.9768 - 1.0157	*24.81 - 25.80*	1.250	0.197	15.232	11.811	12.857	2.375	BXD04014IP	TRDR20IP

■ SMD METRIC BODIES (12X Diameter)

12X Diameter Body No.	Stock	Drill Tip Diameter øDc (inch / *mm*)		øDs	øD1	L	ℓ1 max depth	ℓ2	ℓ3	Screw	Wrench
SMDH140-12D	○	0.5315 - 0.5709	*13.50- 14.50*	*16*	*20*	*236.0*	*168*	*185.0*	*48*	BXD02208IP	TRDR08IP
SMDH150-12D	○	0.5713 - 0.6102	*14.51- 15.50*	*20*	*25*	*250.3*	*180*	*197.3*	*50*	BXD02208IP	TRDR08IP
SMDH160-12D	○	0.6106 - 0.6496	*15.51 - 16.50*	*20*	*25*	*262.6*	*192*	*209.6*	*50*	BXD02509IP	TRDR10IP
SMDH170-12D	○	0.6500 - 0.6890	*16.51 - 17.50*	*20*	*25*	*275.0*	*204*	*222.0*	*50*	BXD02509IP	TRDR10IP
SMDH180-12D	○	0.6894 - 0.7283	*17.51 - 18.50*	*20*	*25*	*287.2*	*216*	*234.2*	*50*	BXD02509IP	TRDR10IP
SMDH190-12D	○	0.7287 - 0.7677	*18.51- 19.50*	*25*	*30*	*305.6*	*228*	*246.6*	*56*	BXD03011IP	TRDR15IP
SMDH200-12D	○	0.7681 - 0.8070	*19.51- 20.50*	*25*	*30*	*317.8*	*240*	*258.8*	*56*	BXD03011IP	TRDR15IP
SMDH210-12D	○	0.8074 - 0.8465	*20.51 - 21.50*	*25*	*30*	*330.1*	*252*	*271.1*	*56*	BXD03011IP	TRDR15IP
SMDH220-12D	○	0.8469 - 0.8976	*21.51 - 22.80*	*25*	*30*	*343.0*	*264*	*284.0*	*56*	BXD03512IP	TRDR15IP
SMDH230-12D	○	0.8980 - 0.9370	*22.81 - 23.80*	*25*	*30*	*354.8*	*276*	*295.8*	*56*	BXD03512IP	TRDR15IP
SMDH240-12D	○	0.9374 - 0.9764	*23.81 - 24.80*	*32*	*37*	*371.7*	*288*	*308.7*	*60*	BXD03512IP	TRDR15IP
SMDH250-12D	○	0.9768 - 1.0157	*24.81 - 25.80*	*32*	*37*	*383.8*	*300*	*320.8*	*60*	BXD04014IP	TRDR20IP

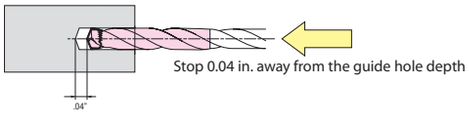
■ Recommended Drilling Method

1. **Make a guide hole using the SMDH-M style (3XD) drill**
   - Use a guide hole SMDH-M (3XD) style drill with the same diameter and chipbreaker as12XD type



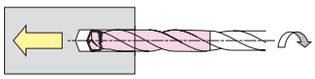
H = Drill dia. x 1.0 to 1.5

2. Feed the 12XD type throught the guide hole at low rotation speed
   - Rotation: 500 rpm Feed Rate: 40 - 80 ipm



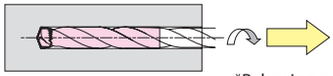
Stop 0.04 in. away from the guide hole depth

3. Increase speed until the set conditional speed is reached and start normal drilling



Increase rotation speed

4. After drilling, rotation speed is reduced and the drill is retracted from the work material
   - Rotation: 500 rpm Feed Rate: 40 - 80 ipm



Change rotation speed to 500 rpm

*Releasing a drill with a higher spindle speed may cause a shoulder damage by a run-out

Recommended Speeds and Feeds - 12XD

Speed: v (SFM) / Feed: f (IPR)

Drill Dia. (Inch)		Soft Steel	General Steel	Hardened Steel	Stainless Steel	Gray Cast Iron	Ductile Cast Iron	Aluminum Alloy
ΦDc		Min - Optimum - Max	Min - Optimum - Max	Min - Optimum - Max	Min - Optimum - Max	Min - Optimum - Max	Min - Optimum - Max	Min - Optimum - Max
~0.6299	Vc	160 - 230 - 260	160 - 230 - 260	100 - 160 - 230	130 - 165 - 200	130 - 200 -260	130 - 160 - 230	590 - 650 - 790
	f	.0059 - .0078 - .014	.0059 - .0078 - .014	.0039 - .0059 - .0079	.0039 - .0059 - .0079	.0078 - .0098 - .012	.0078 - .0098 - .012	.014 - .018 - .022
~0.7874	Vc	160 - 230 - 260	160 - 230 - 260	100 - 160 - 230	130 - 200 - 230	160 - 230 - 300	130 - 200 - 260	590 - 650 - 790
	f	.0059 - .0098 - .014	.0059 - .0098 - .014	.0039 - .0059 - .0098	.0039 - .0059 - .0098	.0079 - .012 - .014	.0079 - .012 - .014	.014 - .019 - .024
~1.000	Vc	160 - 230 - 260	160 - 230 - 260	100 - 160 - 230	130 - 200 - 300	160 - 230 - 300	130 - 230 - 300	590 - 650 - 790
	f	.0078 - .012 - .014	.0078 - .012 - .014	.0039 - .0059 - .0098	.0039 - .0059 - .0098	.0079 - .012 - .016	.0098 - .012 - .014	.014 - .019 - .024