

QFD Matrix
PHASE I QFD

P11553

Areas for user input are in yellow
Clear matrices (yellow areas only) before beginning

Correlation Codes	
++	Very Positive
+	Positive
-	Negative
--	Very Negative

		Engineering Metrics										
Customer Requirements	Customer Weights	Spreader Speed	Powder Density Variation - In-Plane	Powder Density Variation - Transverse	Powder Density %	Surface Roughness	Z Axis Resolution	Platform Parallelism	Platform Size	Must Spread ProMetal Powder	Binder Viscosity	
		Preferred	up	dwn	dwn	up	dwn	up	nom	nom	nom	nom
System Has Motion Control	9	9	1	1	1	1	9	1	3			
Has Fine Z Axis Control	9		3	9	3	3	9	1	1			
Capable of Printing Large Area	1	3	9	1	3		1	3	9			
Maintains a Level Platform	3		1	1					3			
Spreader Head Can Be Swapped Easily	9	1	1	1	1	1					3	
System Collects Excess Powder	1	3									3	
High Reliability	3	9					3	3	1		3	
Easy to Maintain	1	9					3	3	3		3	
System is Easy to Control	3	9					9					
Spreads Layers as Fast as ProMetal Product	3	9							3	9		
Spreads With Even Density	9	3	9	9	3	1	3	3		3		
Spreads With High Density	3	3	3	3	9	3	1			3		
Spreads A Smooth Surface	9	3	3	3	3	9				1		
Spreads Without Disturbing Lower Layer	9					3	3	3		1		
System Spreads ProMetal Powder	3									9		
Printed Sample Must Withstand Light Manual Handling	9				3						3	
Binder is Applied in a Consistent Layer	9					3					9	
Binder is Applied in a Thin Layer	9					3					9	
Technical Targets		>10 cm/sec	< 0.1%	< 0.1%	> 80%		< 0.28µm	< 10µm	450x305x150 mm	Yes	20 cP	
Raw score		451	82	58	64	49	231	81	117	114	54	
Relative Weight		53%	10%	7%	8%	6%	27%	10%	14%	13%	6%	

