



No.	Lean Principle	Definition	Dble Shroom	Glue & Shroom	Royale w/Chse
1	Meet Takt Time	Percent Load closely matches TT... closer the better	5	4.9	3.9
2	One Piece Flow	Process is designed to match one piece produced at a time	4.9	3.9	4
3	Operator Involvement	Less is better...resulting in higher score.	3.8	2.6	3
4	As Simple As Possible	The Simpler the better	3.5	2.5	2.4
5	Hanedashi	Self ejecting or unloading of part... more the better.	2.1	2.1	2.3
6	Chaku-Chaku	Load and Unload points are close together; Operator is just "Loading"	2.6	2.1	2.9
7	Poka-Yoke	Mistake Proofing exists to prevent quality issues (e.g. part orientation)	3.4	3.5	3.3
8	100% Gauging	The more the better	2.5	2.4	3.4
9	Jidoka	Autonomation - will not let you produce a bad part	2.6	2.4	2.1
10	8 Sigma Process Capability	6 sigma = 3.4 DPMO; 1DPMO=5; 3.4DPMO=4; 3=xxxDPMO; 2=xxxDPMO; 1=xxxDPMO	1	1	1
11	Value Added Operations	No waiting, extra motions...operations the customer is willing to pay for Single Minute Exchange of Die - # of changeovers, Amount of changeovers, ...can happen within TT	2.9	2.9	2.7
12	SMED Changeover		1	1	1
13	Minimal Capital	Capitalize at a level consistent with TT; 60-46=5; 75-61=4; 90-76=3; 105-91=2; 120-106=1	4	3	2
14	Tooling Cost	Lower costs are better; 320-300=5; 340-321=4; 360-341=3; 380-361=2; 400-381=1	2	4	3
15	Reducing Tooling Cost	Lower the recurring tool cost the better	2.9	2.7	2.5
16	Machine Maintenance	Total Preventative Maintenance: The fewer the better; The less complicated the better	3.3	2.7	2.3
17	3D (Dangerous, Dirty, Difficult)	Is the operation... Less is better	4.4	1.7	2.3
18	Future Challenge	Will this process meet future business objectives... higher score better.	4.3	3.5	3.3
19	Known Process		4.3	4.4	4
20	Readily Available Equipment		3.8	3.7	3
21	Familiar Technology	"Technology" = material, process, information, etc.	4.4	4.3	4
22	Minimal Time To Develop		3.6	3.1	3.2
23	Labor \$/PCE	4 operators @ 50 sec. CT, 2 cavity tool; 1=\$1.55; 2=\$1.16; 3=\$.77; 4=\$.39; 5=\$.0			
24	Material	8.40-6.30 = 5; 6.80 = 4; 7.30 = 3; 7.80 = 2; 8.30 = 1			
25 lean evaluation principles					
			73.3	65.4	62.6
			217.9	194.2	185.8

Low Average; 1 = Poor

Quantifiable Function vs. Idea Evaluation Form

5P

1. No excess waste

2. No unnecessary motions

3. Low inventory waste

4. Customer-like flow

5. Clear, easy, standard to change

6. Call out - See First in Vehicle

7. Fast change over

8. Easy of handling (low-1/2/3/4/5)

9. Interchangeable blades (moving)

10. Efficient

11. Clean

12. Functional

13. Ergonomic

14. Safety

15. Easy to use

16. Easy to maintain

17. Easy to clean

18. Easy to store

19. Easy to transport

20. Easy to dispose

21. Easy to recycle

22. Easy to repair

23. Easy to upgrade

24. Easy to replace

25. Easy to adjust

26. Easy to calibrate

27. Easy to inspect

28. Easy to test

29. Easy to measure

30. Easy to identify

31. Easy to label

32. Easy to mark

33. Easy to trace

34. Easy to track

35. Easy to record

36. Easy to report

37. Easy to communicate

38. Easy to collaborate

39. Easy to cooperate

40. Easy to compromise

41. Easy to negotiate

42. Easy to resolve

43. Easy to manage

44. Easy to control

45. Easy to monitor

46. Easy to evaluate

47. Easy to improve

48. Easy to innovate

49. Easy to create

50. Easy to deliver



developed with:



Production Preparation Process or 3P Methodology

Developed and implemented an advanced lean concept to enhance product development time to market, and achieve breakthrough changes to the production system while at the same time reducing cost and increasing quality.