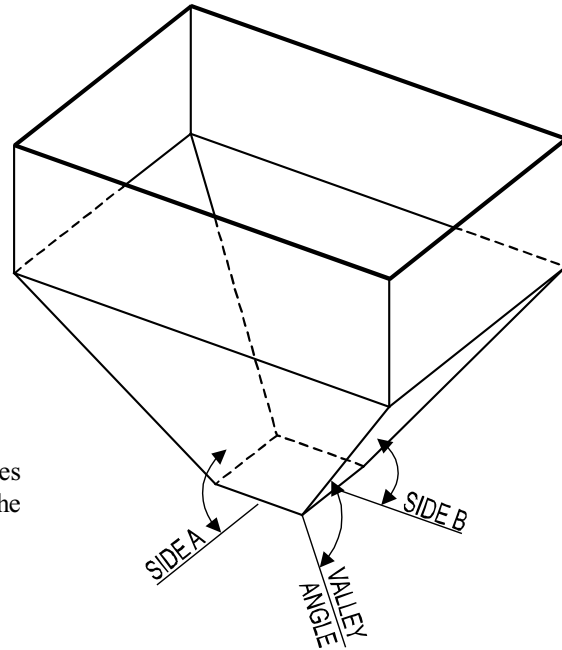
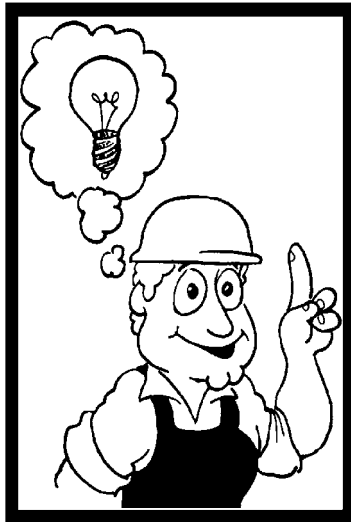


TECH TIPS

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HOPPER FLOW PROBLEMS? WATCH THAT VALLEY ANGLE



Have you ever wondered why product sometimes hangs up in the valley of a hopper even though the sides seem quite steep? Chances are that the valley angle is too low.

Table of Valley Angles

SIDE A - degrees

	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
10	7	8	9	9	10	10	10	10	10	10	10	10	10	10	10	10
15	8	11	12	13	14	14	14	15	15	15	15	15	15	15	15	15
20	9	12	15	16	17	18	18	19	19	19	20	20	20	20	20	20
25	9	13	16	18	20	21	22	23	23	24	24	24	25	25	25	25
30	10	14	17	20	22	24	25	27	27	28	29	29	29	30	30	30
35	10	14	18	21	24	26	28	30	31	32	33	34	34	35	35	35
40	10	14	18	22	25	28	31	33	34	36	37	38	39	39	40	40
45	10	15	19	23	27	30	33	35	37	39	41	42	43	44	45	45
50	10	15	19	23	27	31	34	37	40	42	44	46	48	49	49	50
55	10	15	19	24	28	32	36	39	42	45	48	50	52	53	54	55
60	10	15	19	24	29	33	37	41	44	48	51	53	56	58	59	60
65	10	15	20	24	29	34	38	42	46	50	53	57	59	62	64	65
70	10	15	20	25	29	34	39	43	48	52	56	59	63	66	68	69
75	10	15	20	25	30	35	39	44	49	53	58	62	66	69	72	74
80	10	15	20	25	30	35	40	45	49	54	59	64	68	72	76	79
85	10	15	20	25	30	35	40	45	50	55	60	65	69	74	79	83

SIDE B - degrees

Disclaimer: Downfields Engineering Pty Ltd accepts no responsibility for the interpretation or use of this information.