Pitched Roof Span Chart

0.935kN/m^2 DEAD LOAD + 0.75kN/m^2 IMPOSED LOAD, 89mm BEARINGS, CLEAR SPAN

PRODUCT		400mm ccs			600mm ccs		
DEPTH mm	SERIES	PITCH			PITCH		
		30°	35°	45°	30°	35°	45°
220		4052	3943	3514	3490	3402	3031
220	H	4541	4419	3940	3908	3803	3389
220	HM	4919	4788	4270	4230	4121	3677
220	HI	5170	5035	4490	4445	4330	3865
220	HB	5745	5595	4991	4928	4803	4289
240	HL	4365	4247	3785	3762	3659	3260
240	H	4892	4761	4243	4205	4092	3646
240	HM	5300	5158	4599	4561	4442	3964
240	HI	5572	5423	4835	4792	4668	4165
240	HB	6192	6028	5376	5315	5179	4625
300	HL	5266	5122	4562	4523	4400	3918
300	H	5895	5730	5103	5054	4916	4380
300	HM	6384	6210	5535	5490	5343	4761
300	HI	6708	6529	5819	5778	5623	5012
300	HB	7454	7254	6468	6412	6245	5573
350	HM	7230	7033	6264	6211	6043	5384
350	HB	8440	8212	7321	7268	7078	6314
400	HM	8031	7808	6953	6900	6712	5980
400	HB	9379	9125	8132	8081	7866	7012

DESIGN NOTES:

1. All spans quoted are 'clear spans' measured on plan between bearings.

2. Linear interpolation may be used for intermediate roof pitches between those tabulated.

3. Spans assume rafters are restrained via battens at centres no greater than 400mm.

4. Dead loads quoted are measured on slope and allow for tiles, felt, battens,
rafter self-weight and plasterboard ceiling. A ceiling dead load allowance of 0.25kN/m2 has been included.

5. Imposed load assumed is 0.75kN/m2 (measured on plan) up to 30o pitch, reducing linearly thereafter to zero at 60o pitch.

6. All spans quoted relate to medium-term load duration. K3=1.25

7. Deflection limited to 0.3% of the span.

8. Stability and wind bracing should be provided in the form of diagonal bracing or sarking boards.
The specification of this is the responsibility of the Building Designer.

Flat Roof Span Chart

0.5kN/m2 DEAD LOAD + 0.75kN/m2 IMPOSED LOAD, 89mm BEARINGS, CLEAR SPAN

PRODUCT		400mm ccs	600mm ccs
DEPTH mm	SERIES	PITCH 0°	PITCH 0°
220	HL	4840	4175
220	H	5425	4674
220	HM	5878	5060
220	HI	6181	5317
220	HB	6868	5898
240	HL	5213	4500
240	H	5845	5039
240	HM	6332	5454
240	HI	6658	5731
240	HB	7400	6360
300	HL	6287	5431
300	H	7038	6068
300	HM	7624	6577
300	HI	8014	6911
300	HB	8905	7668
350	HM	8633	7448
350	HB	10080	8689
400	HM	9598	8273
400	HB	11201	9662

DESIGN NOTES:

1. All spans quoted are ‘clear spans’ measured on plan between bearings.

2. Flat roof table covers pitches up to 10o.

3. Maximum spans assume that the joist flanges are adequately restrained laterally by deck and ceiling.

4. Spans are calculated for the uniformly distributed loads indicated only. This allows for the dead load of the roof with a single ply membrane over a 18mm OSB deck, 15mm ceiling plasterboard and insulation. An imposed load of 0.75kN/m2 has been included. This does not make allowance for snow drift loading against on higher buildings. This condition must be assessed by an Engineer or Building Designer.

5. All spans quoted relate to medium-term load duration. K3=1.25

6. Deflection limited to 0.3% of the span.

7. The roof may need strapping down to resist wind uplift. The specification of this is the responsibility of the Building Designer.