GARLANDS

ULMA

Introduction

Garland conveyor systems

Characteristics and advantages

Garland systems are generally used in transporting larger materials using
high load capacity belts, since the hanging system allows for greater belt transportation volume and speed.

The articulation of the garlands allows them to adapt to the shape of the material, reducing impacts against the belt and rollers, which facilitates transportation and considerably increases the life of the rollers. The main advantage in using this system is that the garland can oscillate lengthwise (in the direction of the material being transported), and transversely, absorbing stress and reducing wear on the belt and rollers.

Main advantages garland systems have over fixed supports:

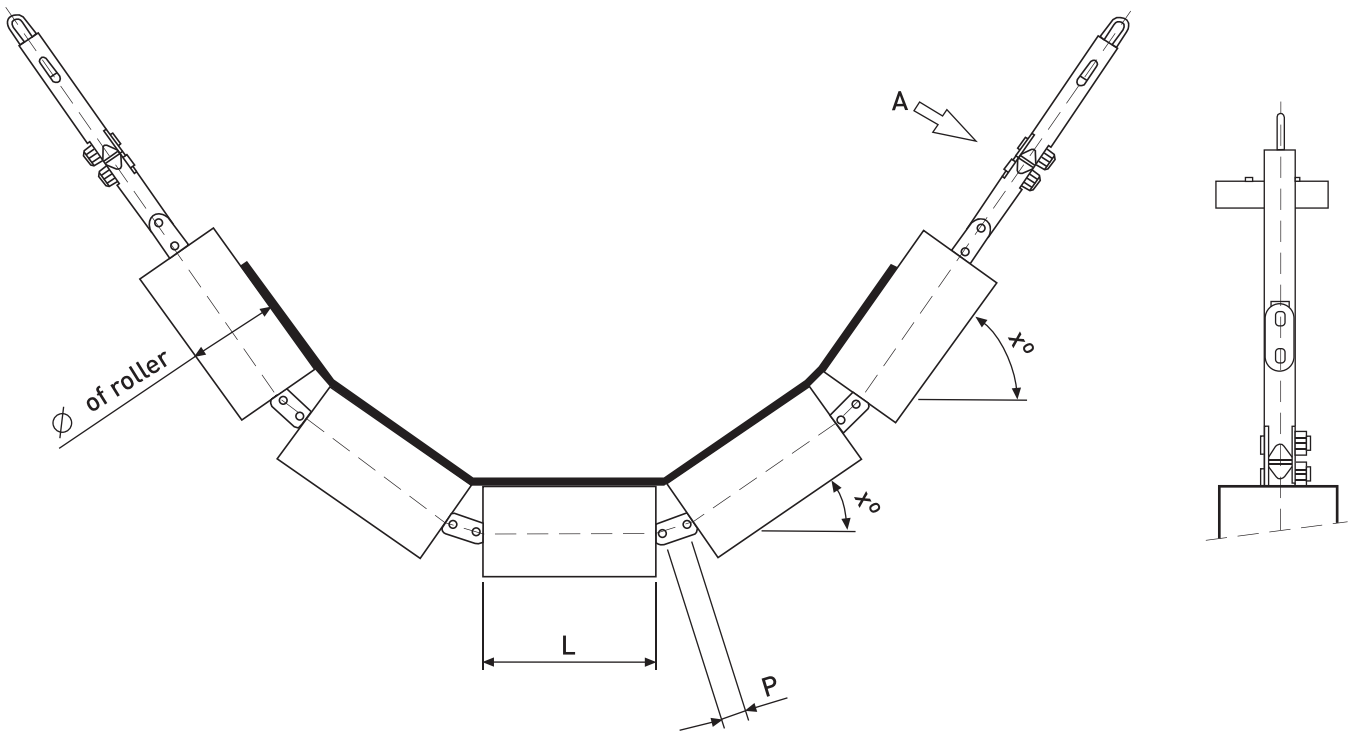
- Better dynamic absorption of stresses.
- Best positioning of the load in the centre of the belt.
- Higher carrying capacity.
- Higher speeds.
- Reduced structural weight.
- Improved belt alignment.

Roller arrangement

The garland is composed of a series of carrying rollers, connected together by chain links. The most common arrangements are:

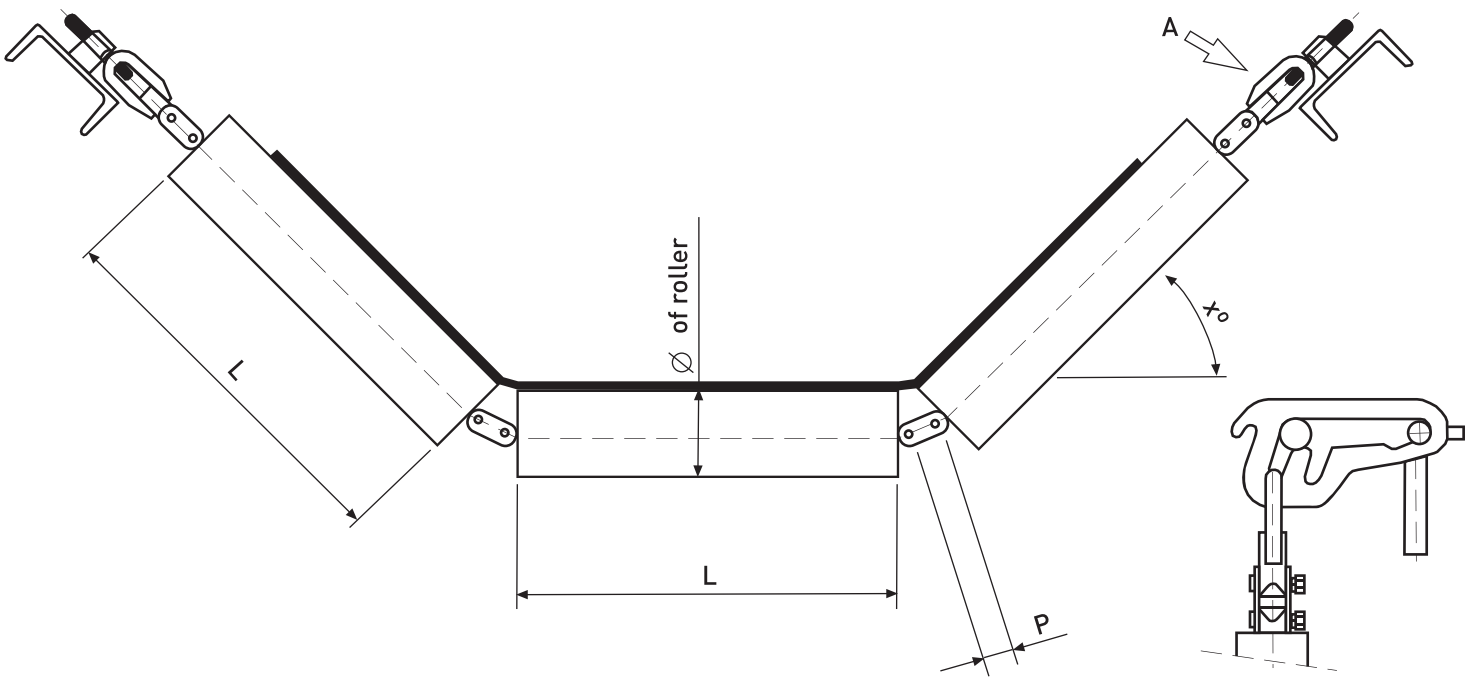
- 2 metallic or rubber rings rollers on return side.
- 3 metallic rollers on carry side.
- 5 metallic rollers or impact rubber rings rollers at the loading stations.

LOADING GARLAND WITH 5 ROLLERS



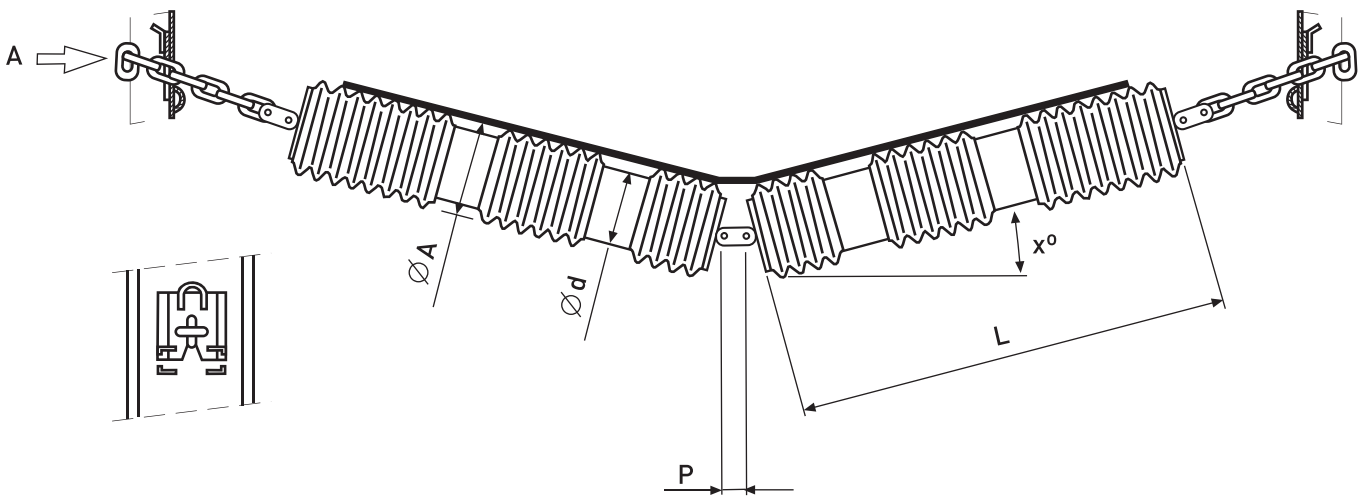
Belt Width	∅ of roller	L	Shaft	Bearing	Pitch	xº
1200	159-177,8-193,7	250 250 250	40 50 60	6308 6310 6312	50,8 57,15 57,15	35º, 60º 35º, 60º 35º, 60º
1400	159-177,8-193,7	290 290 290	40 50 60	6308 6310 6312	50,8 57,15 57,15	35º, 60º 35º, 60º 35º, 60º
1600	159-177,8-193,7	340 340 340	40 50 60	6308 6310 6312	50,8 57,15 57,15	35º, 60º 35º, 60º 35º, 60º
1800	159-177,8-193,7	380 380 380	40 50 60	6308 6310 6312	50,8 57,15 57,15	35º, 60º 35º, 60º 35º, 60º
2000	159-177,8-193,7	420 420 420	40 50 60	6308 6310 6312	50,8 57,15 57,15	35º, 60º 35º, 60º 35º, 60º
2200	159-177,8-193,7	460 460 460	40 50 60	6308 6310 6312	50,8 57,15 57,15	35º, 60º 35º, 60º 35º, 60º
2400	159-177,8-193,7	500 500 500	40 50 60	6308 6310 6312	50,8 57,15 57,15	35º, 60º 35º, 60º 35º, 60º

CARRY GARLAND WITH 3 ROLLERS



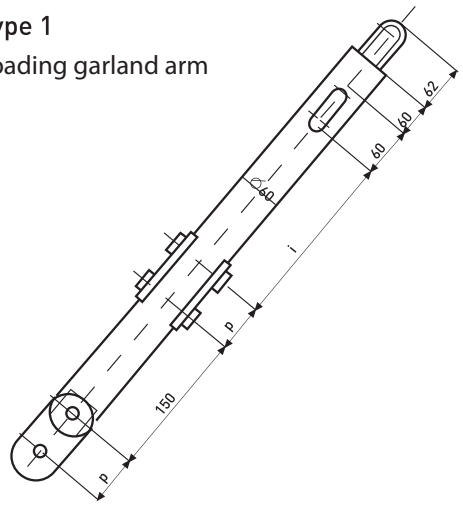
Belt width	∅ of roller	L	Shaft	Bearing	Pitch	xº
500	89-108-133	200	20	6204	25,4	25º-45º
	89-108-133-159	200	25	6205	31,75	25º-45º
		200	25	6305	31,75	25º-45º
650	89-108-133	250	20	6204	25,4	25º-45º
	89-108-133-159	250	25	6205	31,75	25º-45º
		250	25	6305	31,75	25º-45º
		250	30	6306	38,1	25º-45º
800	89-108-133	315	20	6204	25,4	25º-45º
	89-108-133-159	315	25	6205	31,75	25º-45º
		315	25	6305	31,75	25º-45º
		315	30	6306	38,1	25º-45º
1000	89-108-133	380	20	6204	25,4	25º-45º
	89-108-133-159	380	25	6205	31,75	25º-45º
		380	25	6305	31,75	25º-45º
		380	30	6306	38,1	25º-45º
1200	89-108-133	465	20	6204	25,4	25º-45º
	89-108-133-159	465	25	6205	31,75	25º-45º
		465	25	6305	31,75	25º-45º
		465	30	6306	38,1	25º-45º
	108-159	465	40	6308	50,8	25º-45º
1400	89-108-133	530	20	6204	25,4	25º-45º
	89-108-133-159	530	25	6205	31,75	25º-45º
		530	25	6305	31,75	25º-45º
		530	30	6306	38,1	25º-45º
	108-159-193,7	530	40	6308	50,8	25º-45º
1600	89-108-133-159	600	25	6205	31,75	25º-45º
		600	25	6305	31,75	25º-45º
		600	30	6306	38,1	25º-45º
	108-159-193,7	600	40	6308	50,8	25º-45º
1800	108-159-193,7	670	30	6306	38,1	25º-45º
		670	40	6308	50,8	25º-45º
	159-193,7	670	50	6310	50,8	25º-45º
2000	108-159-193,7	750	40	6308	50,8	25º-45º
	159-193,7	750	50	6310	50,8	25º-45º
		750	60	6312	57,15	25º-45º
2200	108-159-193,7	800	40	6308	50,8	25º-45º
	159-193,7	800	50	6310	50,8	25º-45º
		800	60	6312	57,15	25º-45º

RETURN GARLAND WITH 2 ROLLERS

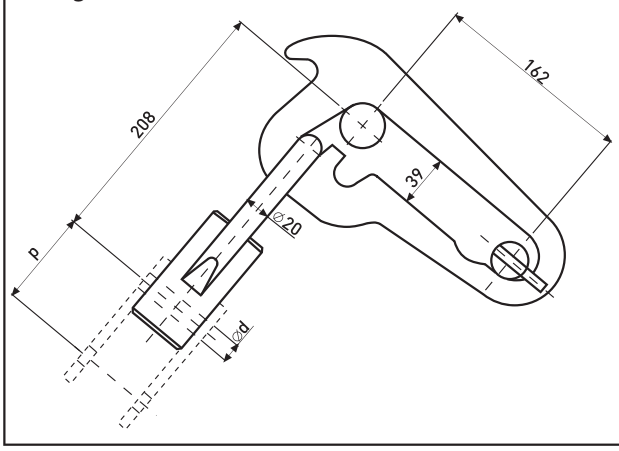


Belt width	∅ of roller	L	Shaft	Bearing	Pitch	x°
500	89-108-133	315	20	6204	25,4	10°
	89-108-133-159	315	25	6205	31,75	10°
		315	25	6305	31,75	10°
650	89-108-133	380	20	6204	25,4	10°
	89-108-133-159	380	25	6205	31,75	10°
		380	25	6305	31,75	10°
		380	30	6306	38,1	10°
800	89-108-133	465	20	6204	25,4	10°
	89-108-133-159	465	25	6205	31,75	10°
		465	25	6305	31,75	10°
		465	30	6306	38,1	10°
1000	89-108-133	600	20	6204	25,4	10°
	89-108-133-159	600	25	6205	31,75	10°
		600	25	6305	31,75	10°
		600	30	6306	38,1	10°
1200	89-108-133	700	20	6204	25,4	10°
	89-108-133-159	700	25	6205	31,75	10°
		700	25	6305	31,75	10°
		700	30	6306	38,1	10°
	108-159	700	40	6308	50,8	10°
1400	89-108-133	800	20	6204	25,4	10°
	89-108-133-159	800	25	6205	31,75	10°
		800	25	6305	31,75	10°
		800	30	6306	38,1	10°
	108-159-193,7	800	40	6308	50,8	10°
1600	89-108-133-159	900	25	6205	31,75	10°
		900	25	6305	31,75	10°
		900	30	6306	38,1	10°
	108-159-193,7	900	40	6308	50,8	10°
1800	108-133-159	1000	25	6205	31,75	10°
		1000	25	6305	31,75	10°
	108-159-193,7	1000	40	6306	38,1	10°
		1000	50	6308	50,8	10°
	159-193,7	1000	60	6310	50,8	10°
2000	133-159	1100	25	6205	31,75	10°
		1100	25	6305	31,75	10°
	108-159-193,7	1100	40	6308	50,8	10°
		1100	50	6310	50,8	10°
	159-193,7	1100	60	6312	57,15	10°
2200	133-159	1250	30	6306	38,1	10°
	108-159-193,7	1250	40	6308	50,8	10°
	159-193,7	1250	50	6310	50,8	10°
		1250	60	6312	57,15	10°

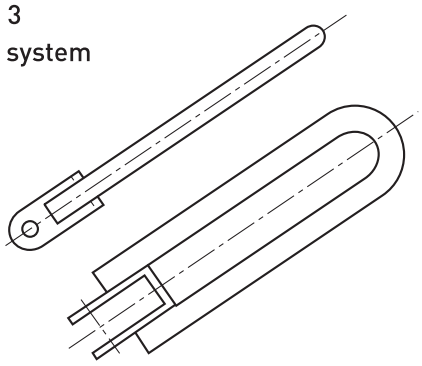
Type 1
Loading garland arm



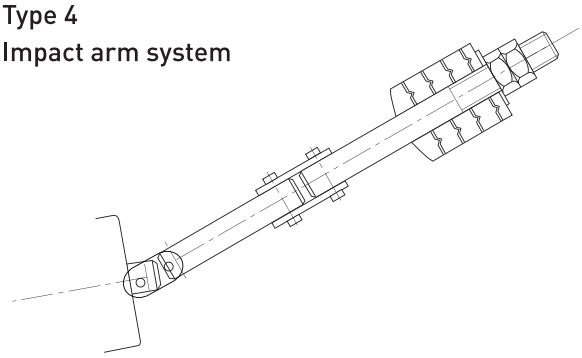
Type 2
Forged Hook



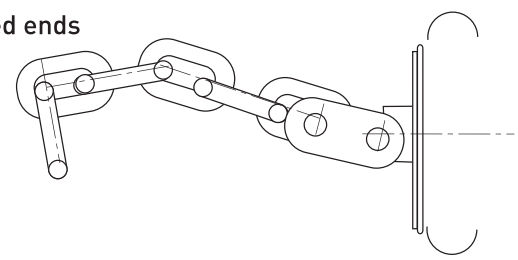
Type 3
Link system



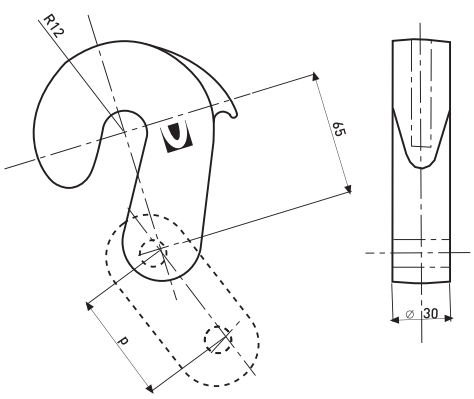
Type 4
Impact arm system



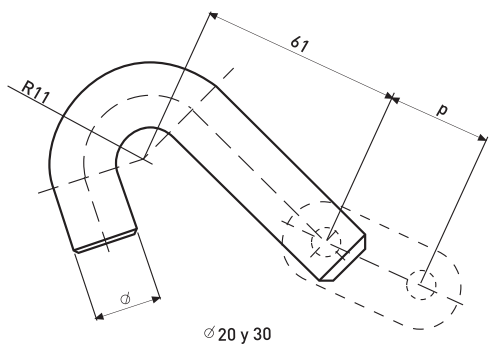
Type 5
Chain linked ends



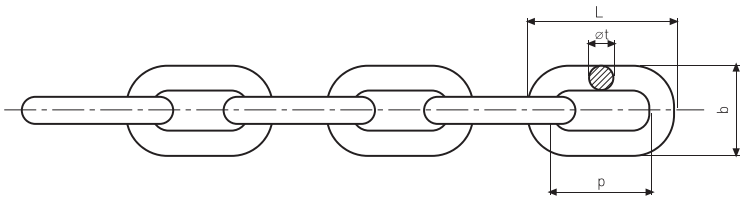
Type 6
Hooks for shafts of Ø30- Ø40



Hooks for shafts of Ø20-25

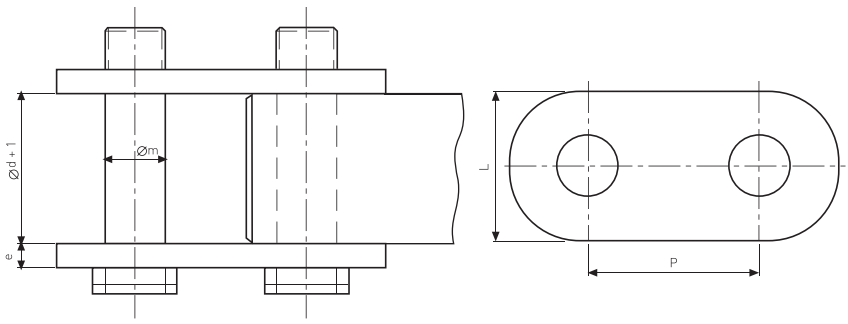


CHAIN ACCORDING TO DIN 764



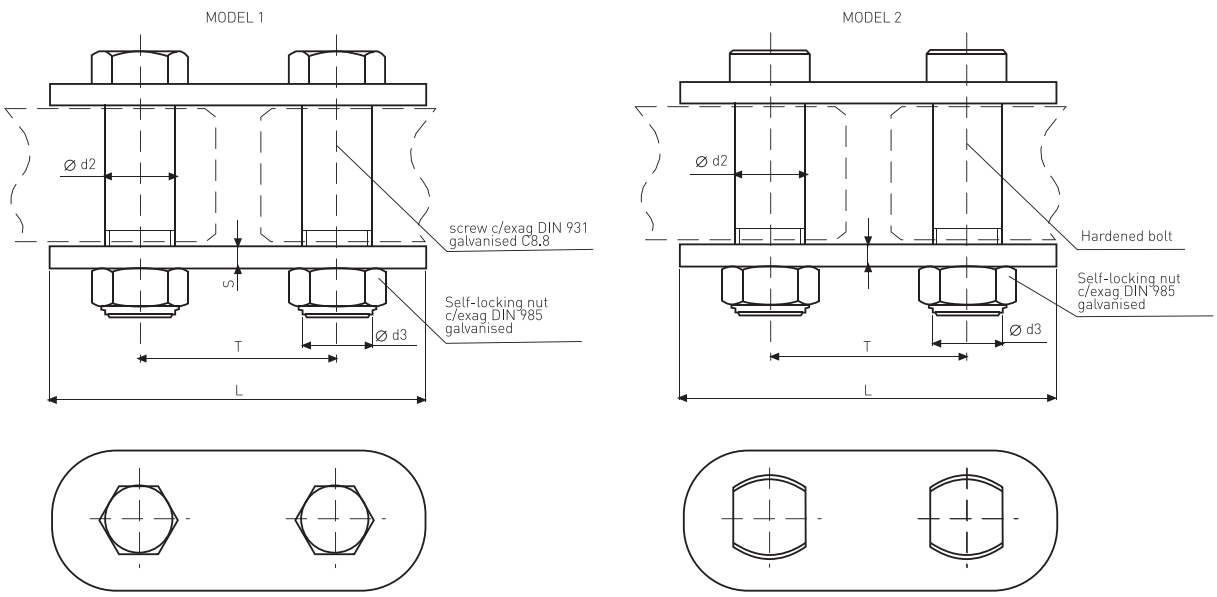
∅axle	20	25	30	40	50	60
t	10	13	13	16	16	16
p	35	45	45	56	56	56
b	34	44	44	54	54	54
L	55	71	71	88	88	88

LINKS



∅axle	20	25	30	40	50	60
p	25,4	31,75	38,1	50,8	57,15	57,15
m	10	10	12	15/16	20/25	20/25
e	5	5	5	6/8	8/14	8/14
L	26	30	30	40	50/60	50/60

LINKS & BOLTS



DIMENSIONS								
∅ Axle	for bearing	∅ d2 (mm)	for hole	∅ d3 (mm)	T (mm)	L max (mm)	s(mm)	MODEL
25	6305	9,8	10,3	M-10	31,75	62	5	MODEL 1
30	6306	11,8	12	M-12	38,1	68	5	MODEL 1
40	6308	14,5	15	M-12	50,8	93	6	MODEL 2
40	6310	14,5	15	M-12	50,8	93	6	MODEL 2
50	6310	20	20,5	M-20	57,15	109	8	MODEL 2
40	6312	20	20,5	M-20	57,15	109	8	MODEL 2
50	6312	25	25,5	M-20	57,15	117	15	MODEL 2