

MEGALINEAR



MEGADYNE

FIXING PLATES

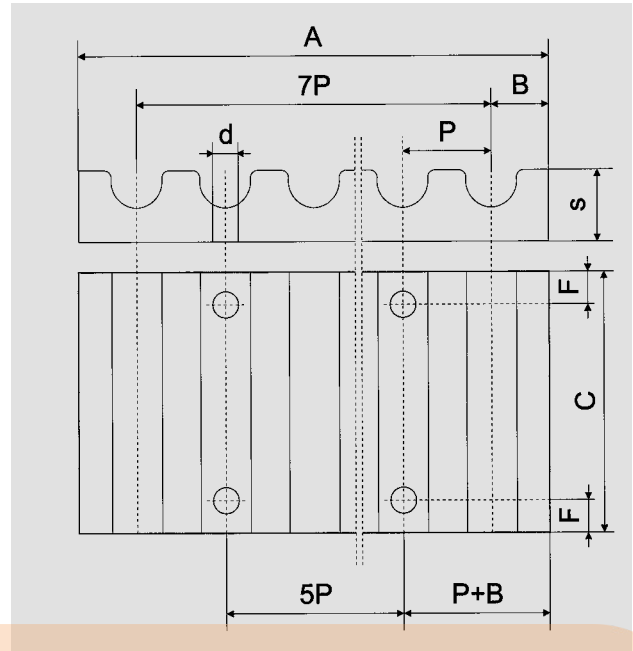
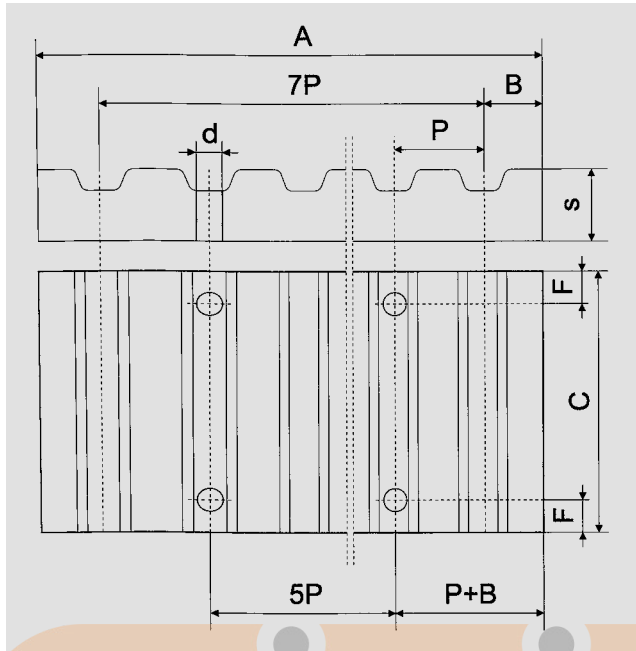
The fixing plates are used to fix the tail of the open belts.

On the customer's request, the plates can be delivered with or without fixing holes.

As the belt can't be stretched with the fixing plates we suggest to use other tension system.

The plates are delivered in aluminium alloy.

The Megadyne Technical Staff is ready to study special or particular applications.



XL - L - H - T5 - T10 - T20 - AT5 - AT10 - AT20

HTD

Order code example: AT10 pitch clamping plate for 25 mm width belt.

Clamping plates for imperial pitch belts

Aluminium	Pitch	F	d	B	A	S	Belt width (inches)							
							025	037	050	075	100	150	200	300
							C							
•XL	6	5,5	3,5	42,5	8	25,5	28,5	32	38	45	-	-	-	-
•L	8	9	5	76,5	15	-	-	39	45	51,5	64	77	-	-
•H	10	11	9	106,9	22	-	-	45	51	57,5	70	83	108	134

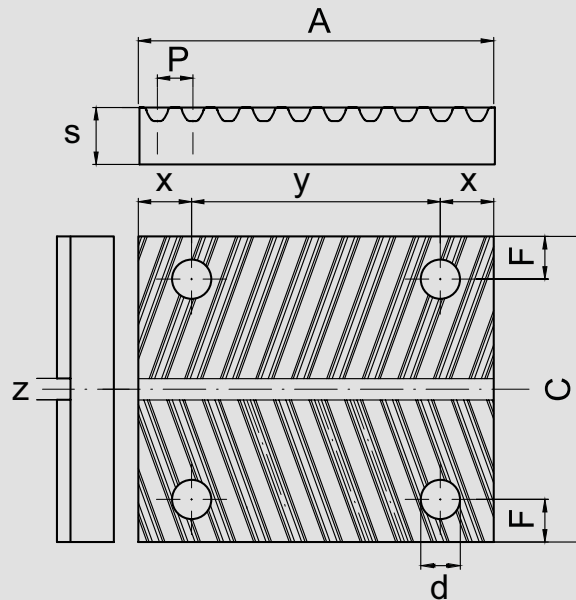
Clamping plates for HTD pitch belts

Aluminium	Pitch	F	d	B	A	S	Belt width (mm)										
							6	9	10	15	20	25	30	40	50	55	85
							C										
•5M	6	5,5	3,25	41,5	8	25	28	-	34	-	44	-	-	-	-	-	-
•8M	8	9	5	66	15	-	-	35	40	45	-	55	-	75	-	110	-
•14M	10	11	9	116	22	-	-	-	-	-	56	-	71	-	86	116	146

Clamping plates for metric pitch belts

Aluminium	Pitch	F	d	B	A	S	Belt width (mm)							
							6	10	16	20	25	32	50	75
							C							
•T5	6	5,5	3,25	41,65	8	25	29	35	39	44	51	69	-	-
•AT5														
•T10	8	9	5	80	15	-	35	41	-	50	57	75	100	125
•AT10														
•T20	10	11	10	160	20	-	-	-	-	56	63	81	106	132
•AT20														

• Available in customized length



Clamping plates for QST 5

Aluminium	Pitch	BELT'S WIDTH (mm)	F	d	A	S	x	y	z	C
	• QST 5		12	6	5,5	50	8	7,5	35	3
		24	6	5,5	50	8	7,5	35	3	43

Clamping plates for QST 8

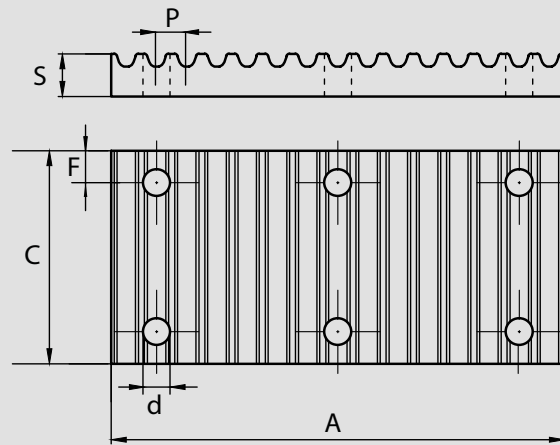
Aluminium	Pitch	BELT'S WIDTH (mm)	F	d	A	S	x	y	z	C
	• QST 8		16	7,5	9	74	14,5	13	48	3
		25	8	9	74	14,5	13	48	3	50
		32	8	9	74	14,5	13	48	3	57
		50	8	9	74	14,5	13	48	3	75

Clamping plates for QST 14

Aluminium	Pitch	BELT'S WIDTH (mm)	F	d	A	S	x	y	z	C
	• QST 14		35	9,5	11	130	22	23	84	3
		52,5	9,5	11	130	22	23	84	3	82,5
		70	9,5	11	130	22	23	84	3	100
		105	10	11	130	22	23	84	3	136

• Available in customized length

FIXING PLATES GW



Clamping plates for GW14

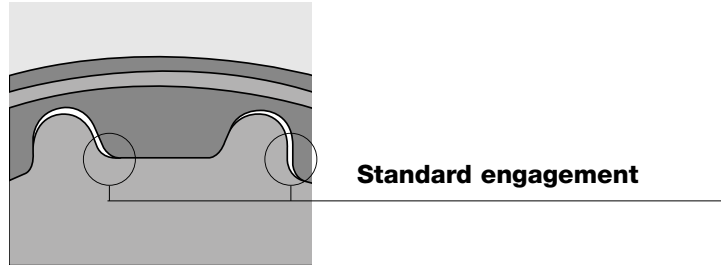
	BELT'S WIDTH (mm)	A (mm)	C (mm)	S (mm)	F (mm)	d (mm)	Screws UNI-EN 14399-8.8	N° of screws
Steel	Pitch	210	100	20	15	12,5	M12	2X3
	• GW14	100	210	150	20	15	M12	2X3
		150	210	200	20	15	M12	2X5
		200	210	250	20	15	M12	2X6

Clamping plates for GW20

	BELT'S WIDTH (mm)	A (mm)	C (mm)	S (mm)	F (mm)	d (mm)	Screws UNI-EN 14399-8.8	N° of screws
Steel	Pitch	340	110	36	15	16,5	M16	2X3
	• GW20	100	340	160	36	15	M16	2X3
		150	340	210	36	15	M16	2X4
		200	340	260	36	15	M16	2X5

POSITIONING AND TRANSMISSION PRECISION

Backlash between belt and pulley teeth is very important for positioning and transmission synchronism.



To improve transmission precision, it is possible to use zero or reduced backlash pulleys. Please note that these pulleys don't reduce the elasticity of belt teeth or cords.

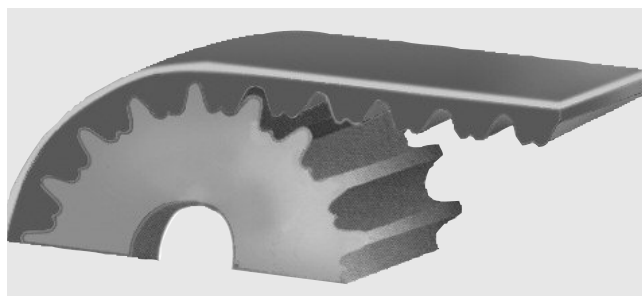
Maximum recommend pulley teeth is:

Till 100 1/min	Z = 40	
Till 500 1/min	Z = 30	
Till 1000 1/min	Z = 20	

In following table there is a list of average values for backlashes:

Available pitch for "zero" backlash pulley	T5 XL	T10 L H	T20 XH	AT5	AT10	AT20
Average backlash value for standard	0,6	1,2	2,4	0,2	0,4	0,8

RPP belts and pulleys offer great solution for positioning system because their parabolic profile reduces backlash and improves meshing quality.



CLEATS

Megadyne timing belts can be customised with profiles vulcanised on the backside. All the cleats are made using the same thermoplastic polyurethane as the MEGALINEAR body (white PU 92 ShA).

The profiles are attached with the best technology now available, the High Vibration System.

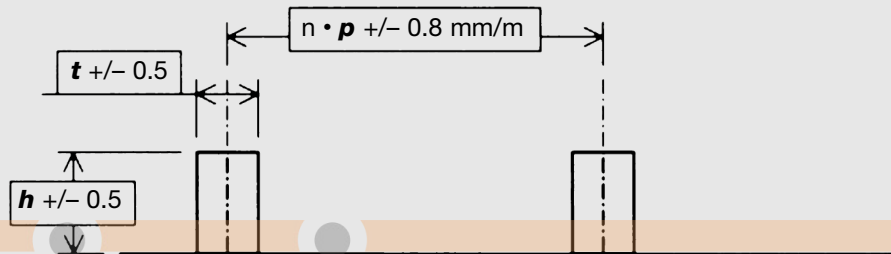
The production process for these profiles is very flexible; Megadyne can design any profile to meet the specific requirement of the customer, in order to check and develop all the needed special profiles.

STANDARD PARALLELEPIPED PROFILES

Megadyne can produce, as standard cleats, the parallelepiped profiles, starting from a thermoplastic polyurethane strip roll and cutting until the requested profile dimension.

The t value (thickness) is available from 2 until 13 mm, the h value (height) can be from 3 until 120 mm and the width can be 150 mm maximum.

Megadyne recommend that the profile spacing were multiple of the belt pitch; in any case, for special inquiries and small quantities, it is possible to weld the profiles also in others positions; the feasible dimensions, with the standard process tolerances, are introduced in the following sketch.



The tolerances on the position are ± 0.5 mm.

The cumulative tolerance on the spacing of the profiles is the same of the length tolerance for our standard belts (± 0.8 mm/m) (tighter tolerances are available on request).

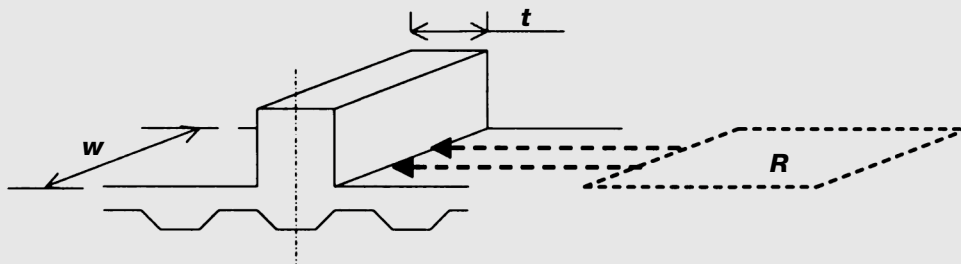
Due to the welding process, a bead of material develops at the meeting point of profile and belt.

In any case, Megadyne always remove this welding bead.

Profile MECHANICAL RESISTANCE

In order to find the right cleat dimensions, please consider the following factors:

- Section base cleats resistance (**R**) becomes bigger, increasing:
 - cleats width (**w**)
 - cleats thickness (**t**)



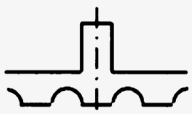
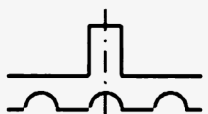
- Cleat stiffness is bigger:
 - increasing cleat thickness (**t**)
 - using special moulded profiles, like STDE0006, STDE0008, STDE0010 and STMI0012 types

MIN. N° OF PULLEY TEETH FOR BELTS WITH PROFILES

The profiles presence can change the belt flexibility properties; the two factors that affect the original flexibility are the following:

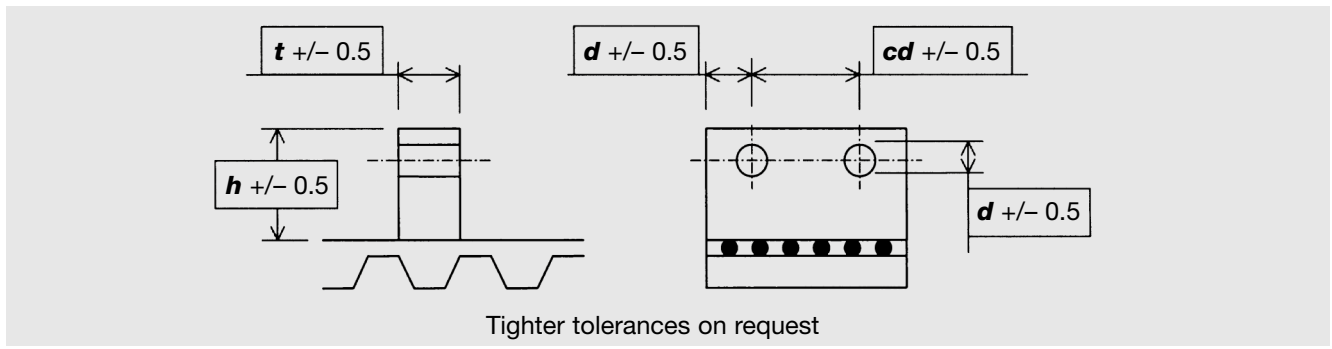
- thickness of the cleat “foot“ (size of the base). Flexibility decreases when welded area dimensions increase
- position of the welded profile on the belt. When the cleats are welded in axis with the teeth, belt flexibility is better than when cleats are welded in axis with the little nose.

Please find, in the following table, flexibility properties for the cleated belts.

MINIMUM NUMBER OF PULLEY TEETH													
CLEATS OVER A TOOTH							CLEATS NOT OVER A TOOTH						
													
CLEATS THICKNESS	4	5	6	8	10	12	CLEATS THICKNESS	4	5	6	8	10	12
XL	18	18	25	40	50	100	XL	45	45	50	60	100	-
L	12	12	18	30	40	60	L	40	40	45	55	60	80
H	14	14	14	18	25	45	H	25	25	30	45	50	65
XH	18	18	18	28	18	20	XH	20	20	30	40	45	54
T5 / AT5	18	18	25	40	50	100	T5 / AT5	45	45	50	60	100	-
T10 / AT10	14	14	14	18	25	45	T10 / AT10	30	30	40	45	50	65
T20 / AT20	18	18	18	18	18	20	T20 / AT20	20	20	30	40	45	54
RPP5	18	18	25	40	50	100	RPP5	45	45	50	60	100	-
RPP8	14	14	14	18	25	45	RPP8	30	30	40	45	50	65
RPP14	18	18	18	18	18	20	RPP14	20	20	30	40	45	54

STANDARD PARALLELEPIPED PROFILES WITH HOLES

Parallelepiped profiles are available also with holes, to satisfy specials applications; please find below the standard tolerances for this kind of cleats.



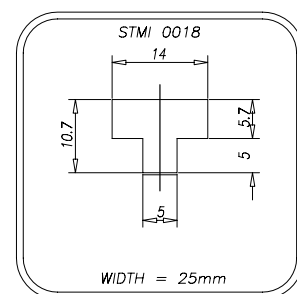
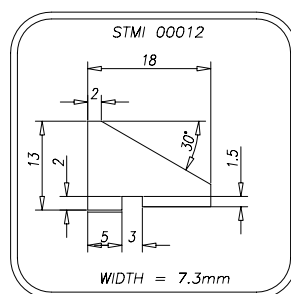
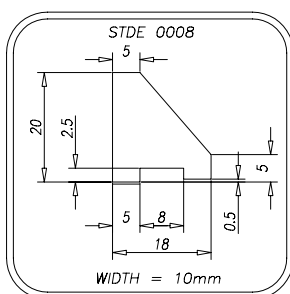
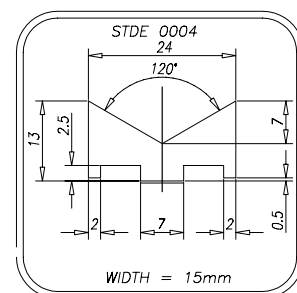
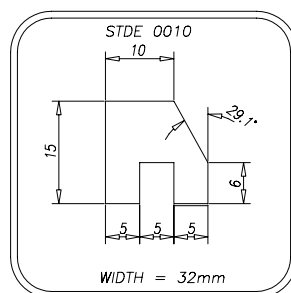
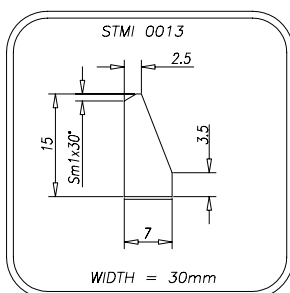
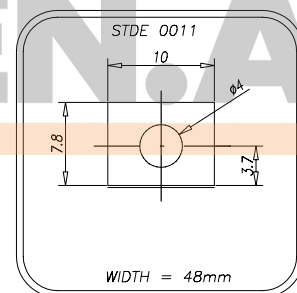
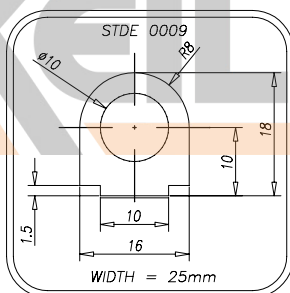
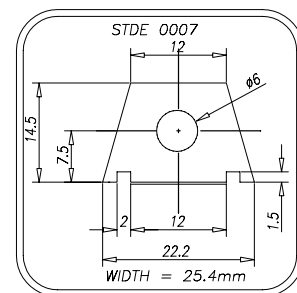
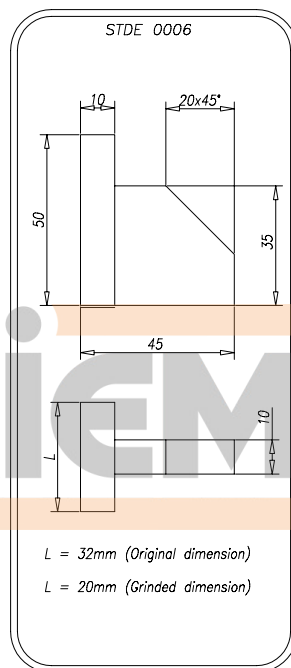
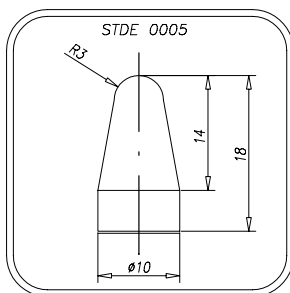
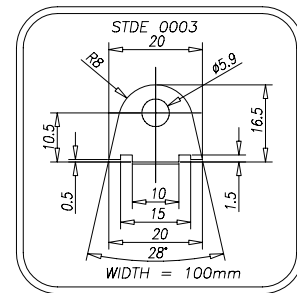
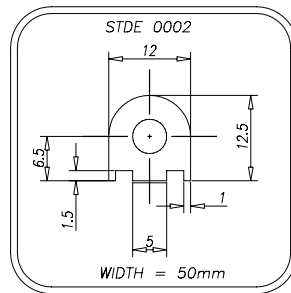
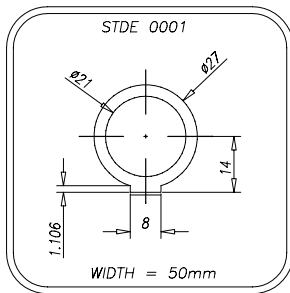
For belt flexibility and mechanical resistance, please kindly refer to values for cleats without holes.

MOULDED CLEATS

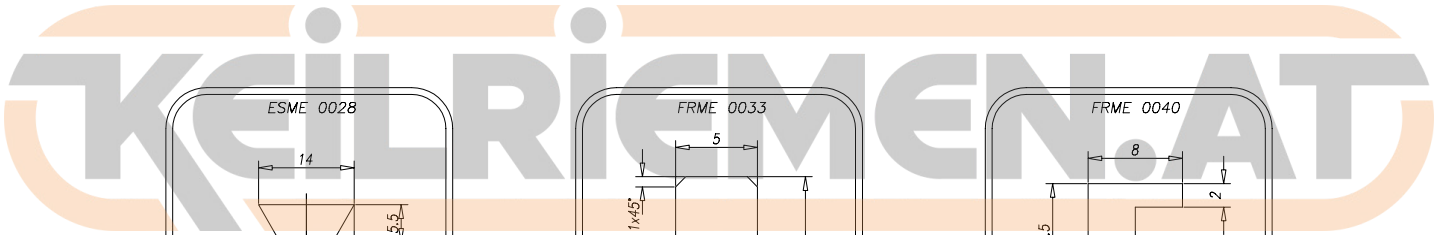
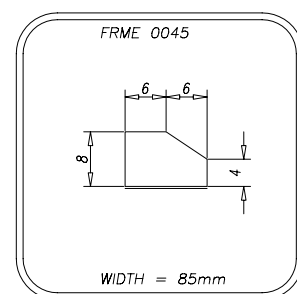
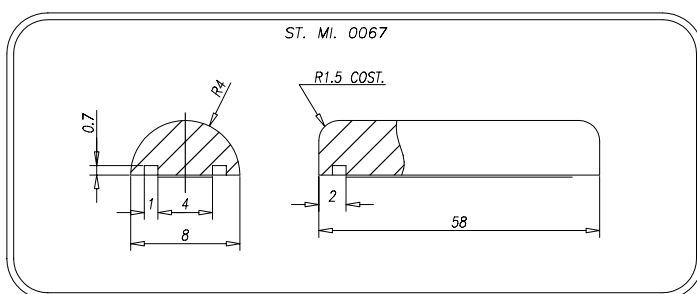
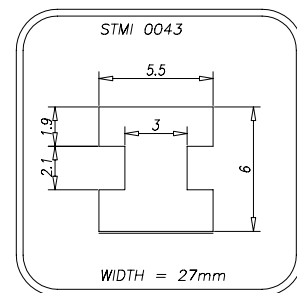
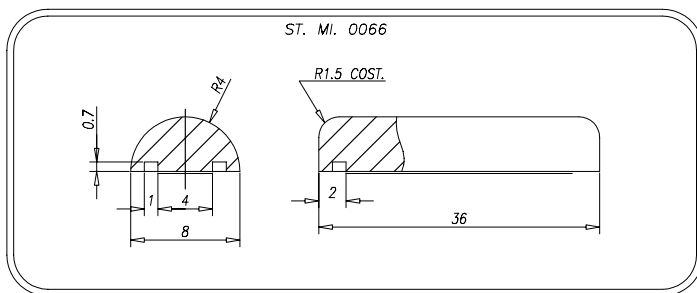
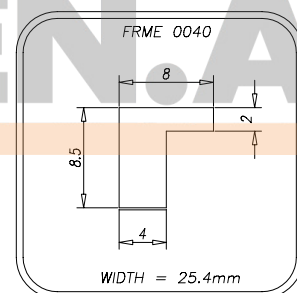
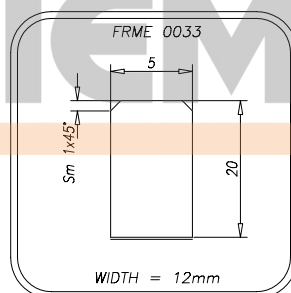
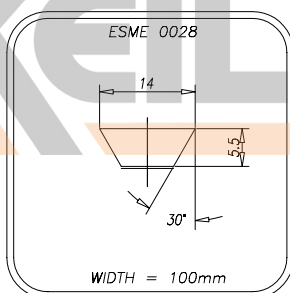
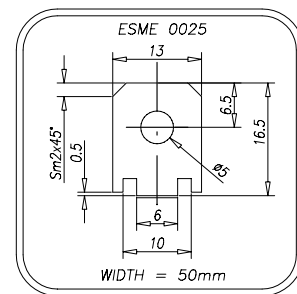
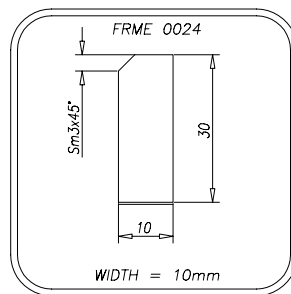
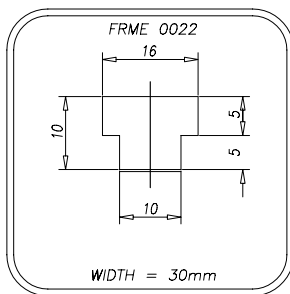
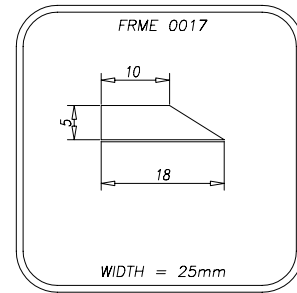
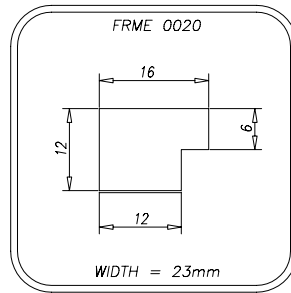
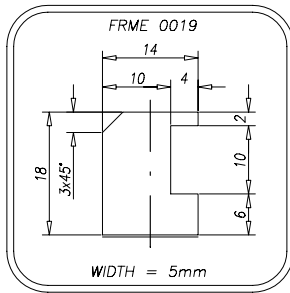
Using an high performance injection system, Megadyne can produce any profile designed by the customer. For cleats not yet present in following pages, Megadyne can produce dedicated mould according customer requirements. For belt flexibility and mechanical resistance, please kindly refer to standard parallelepiped profiles section.

CLEATS

If the needed cleat wouldn't yet present in the following tables, please contact MEGADYNE staff.

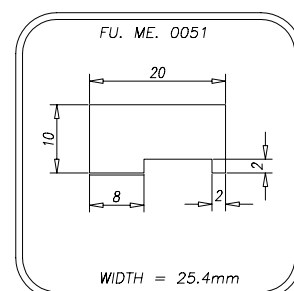
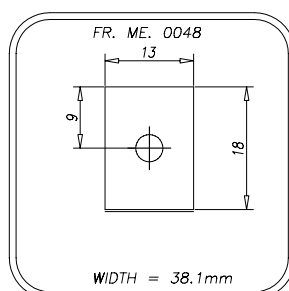
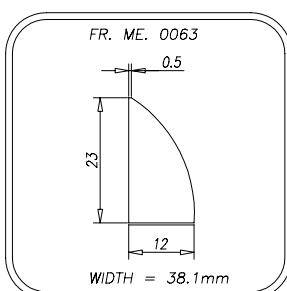
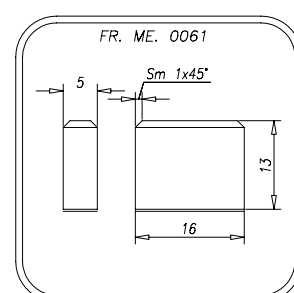
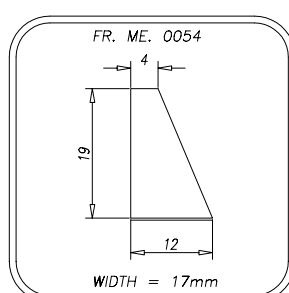
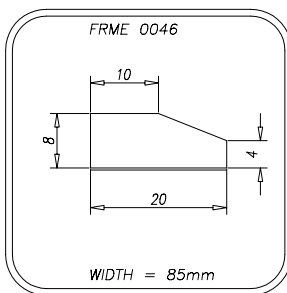
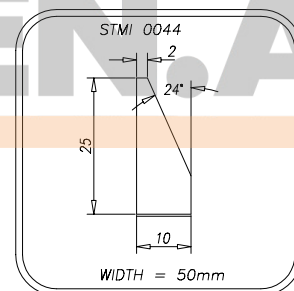
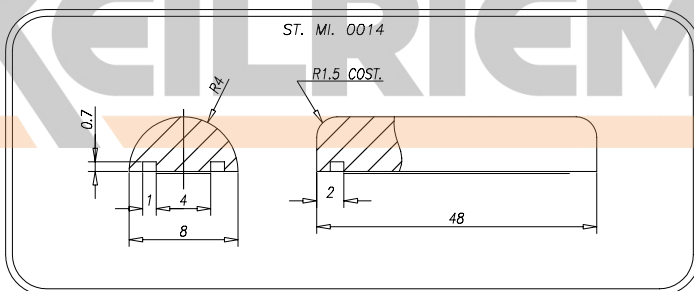
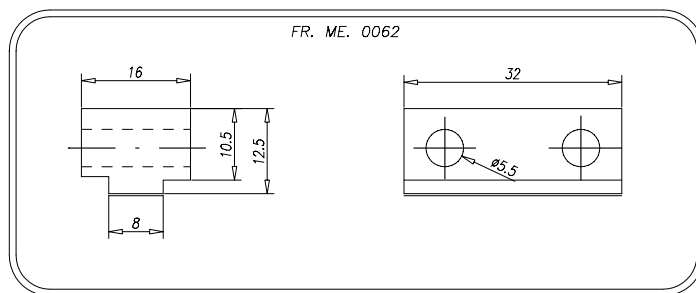
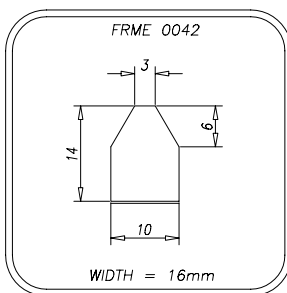
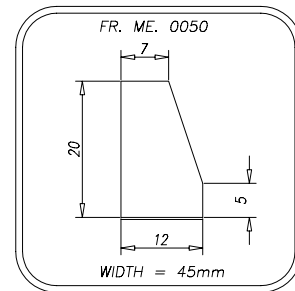
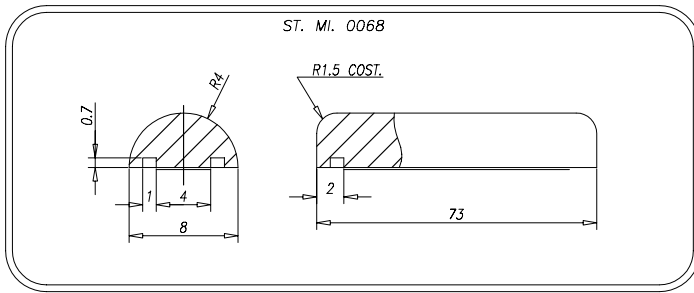


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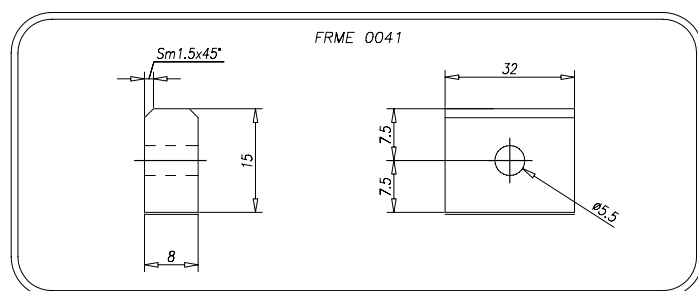
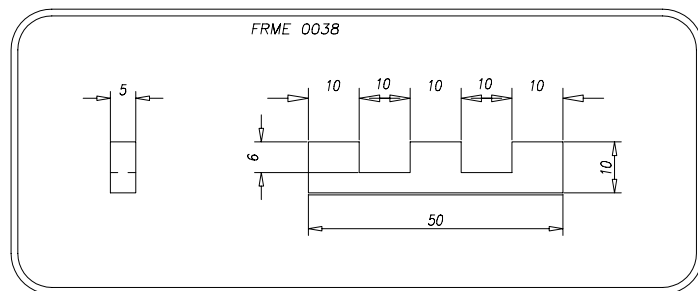
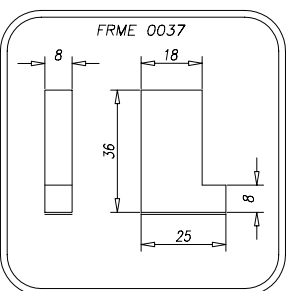
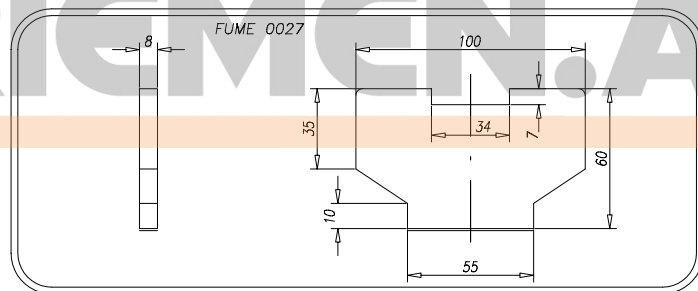
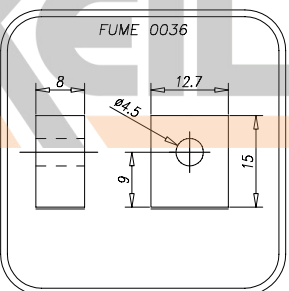
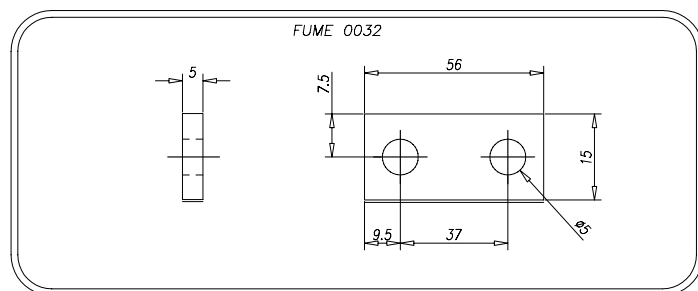
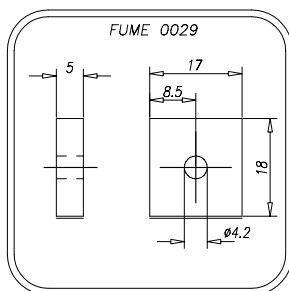
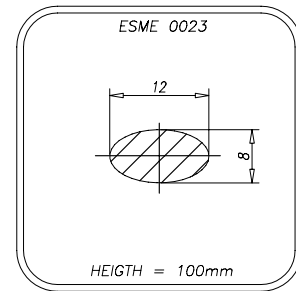
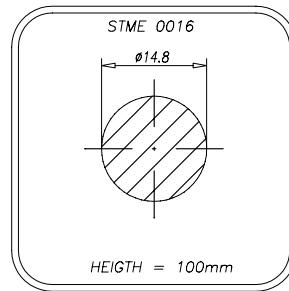
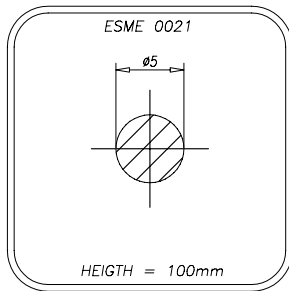


CLEATS

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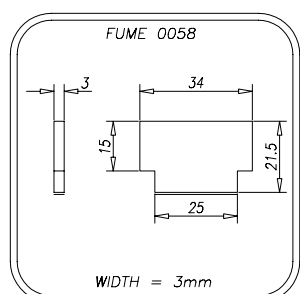
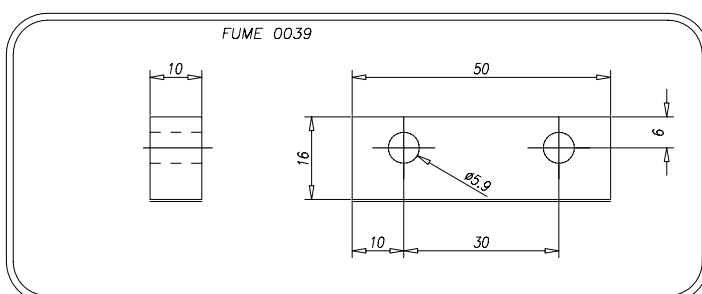
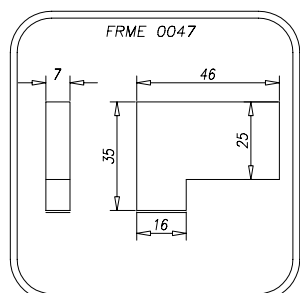
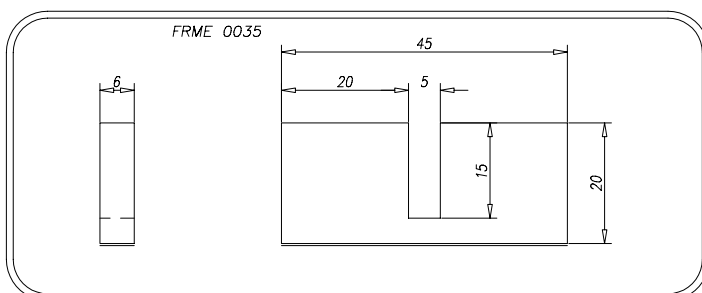
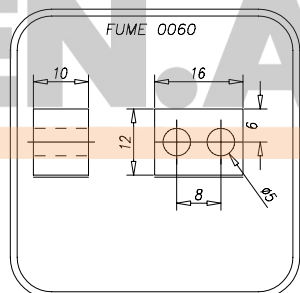
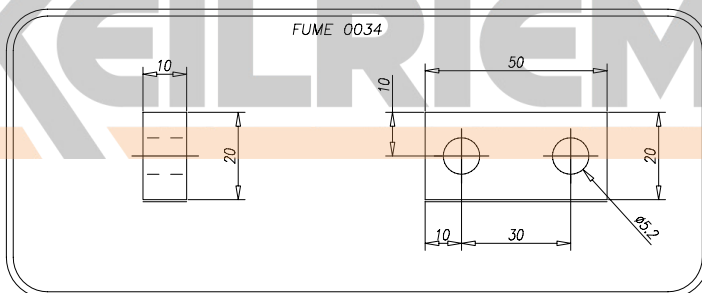
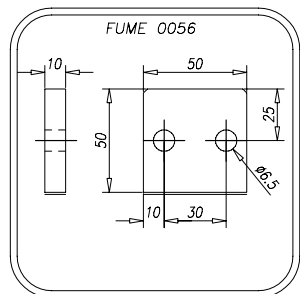
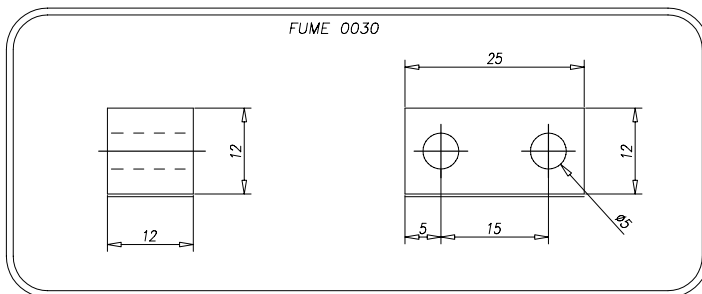
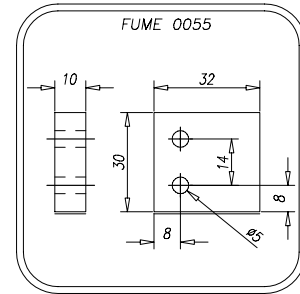
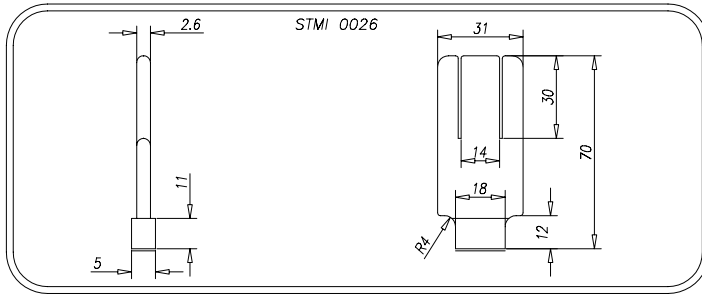
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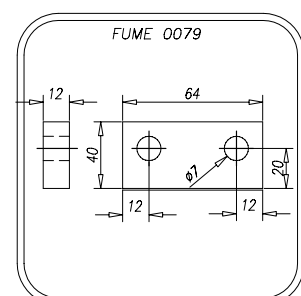
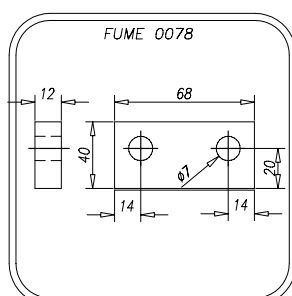
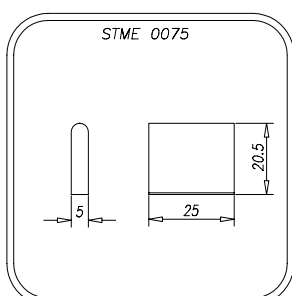
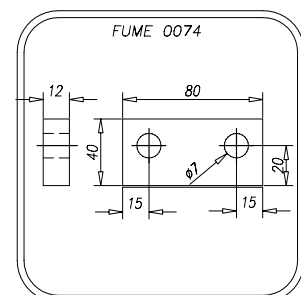
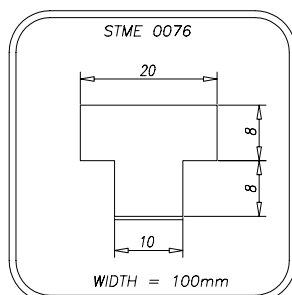
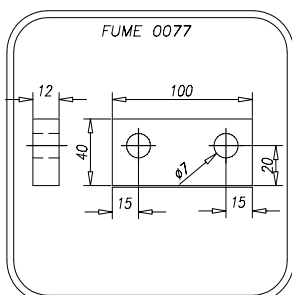
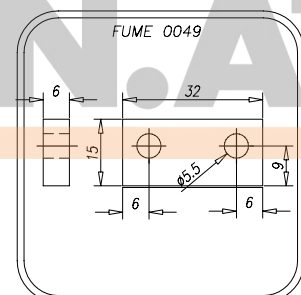
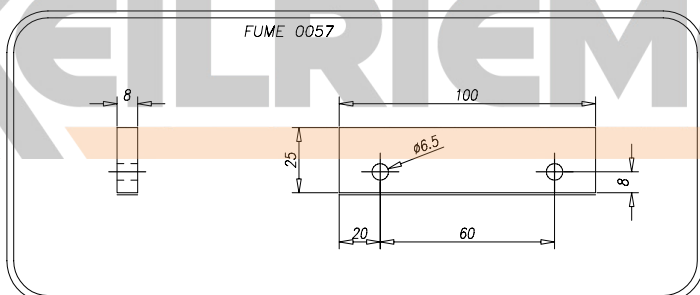
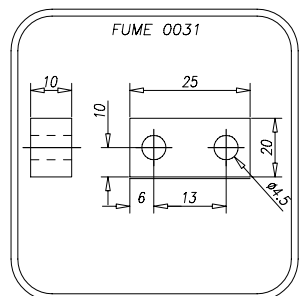
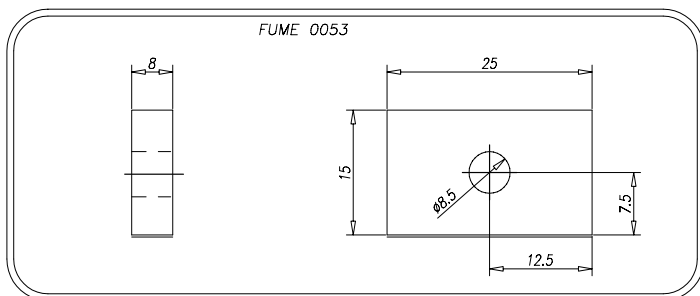
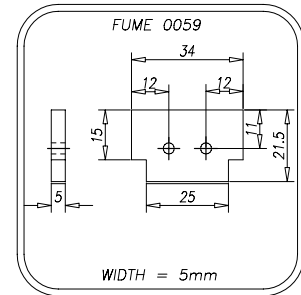
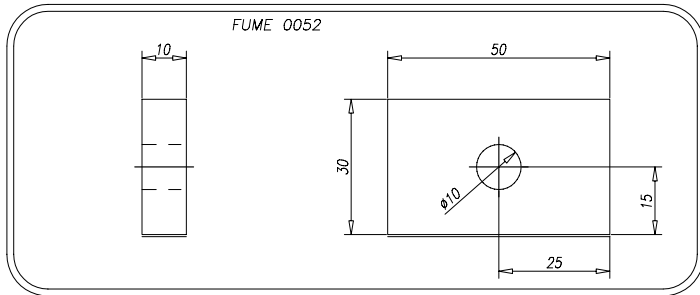
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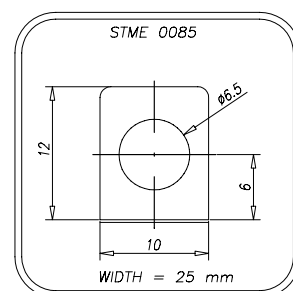
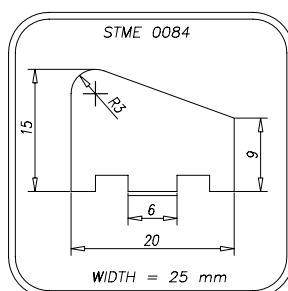
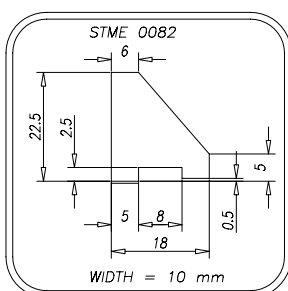
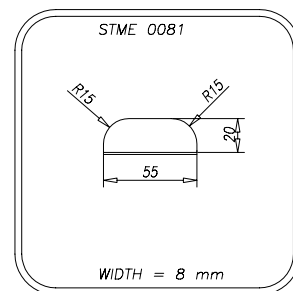
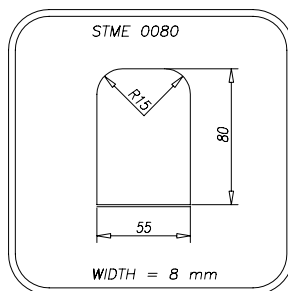
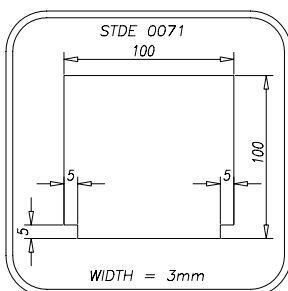
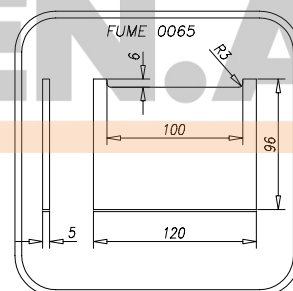
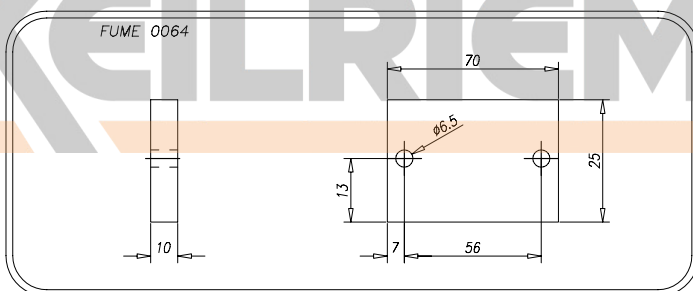
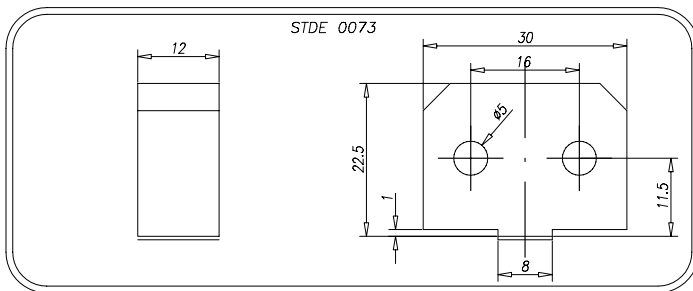
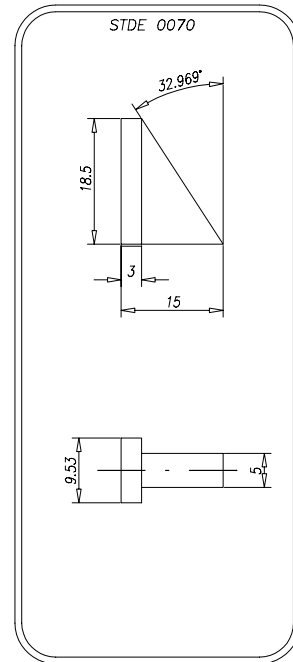
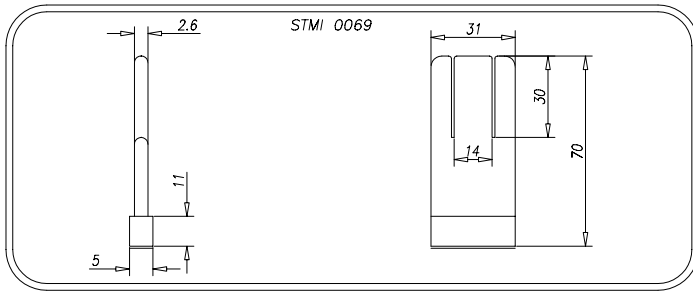


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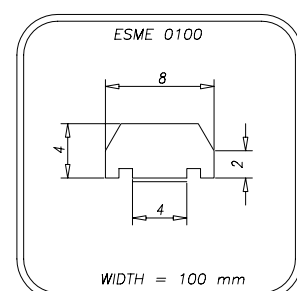
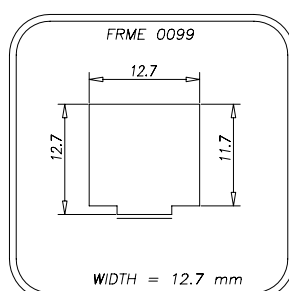
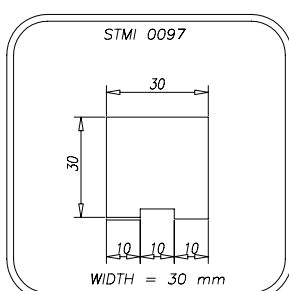
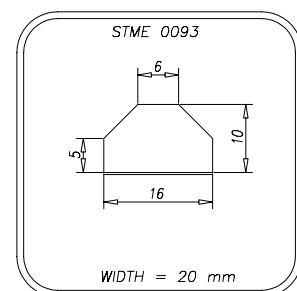
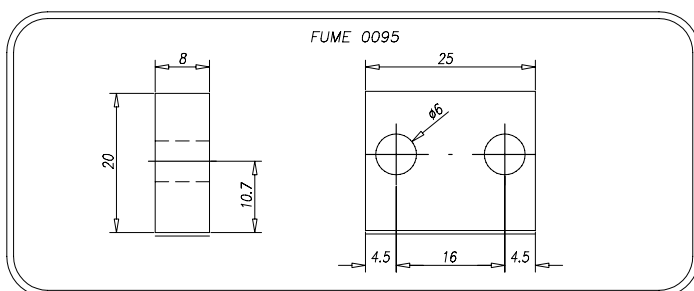
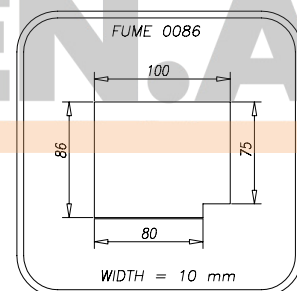
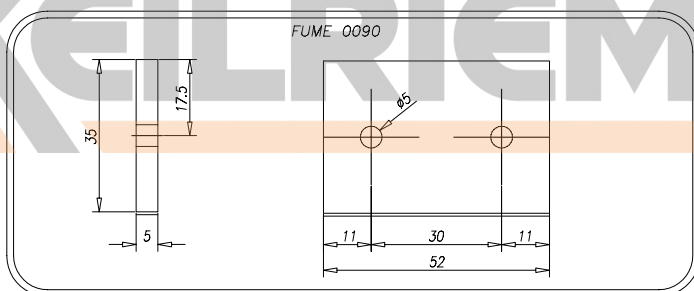
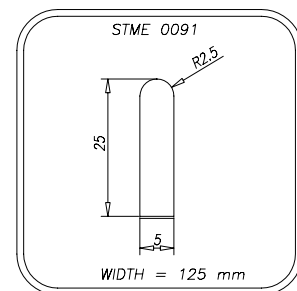
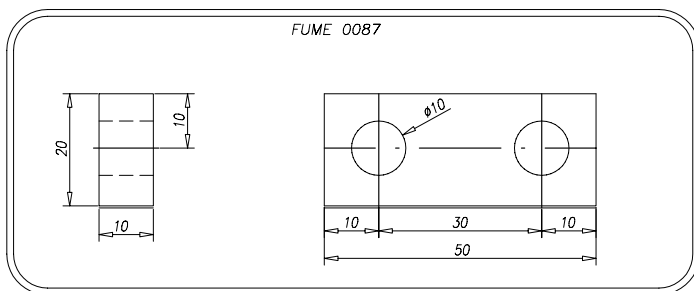
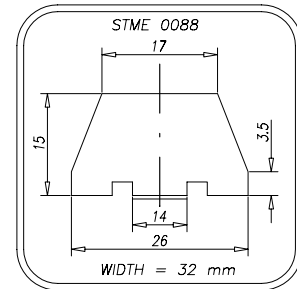
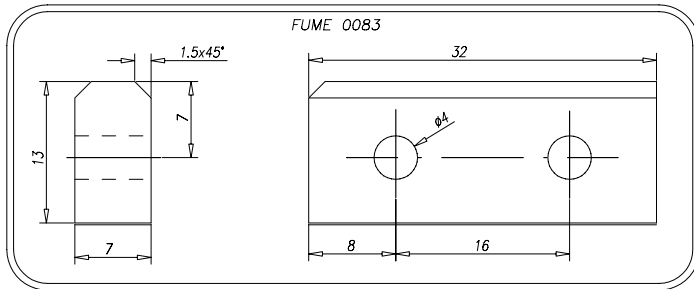


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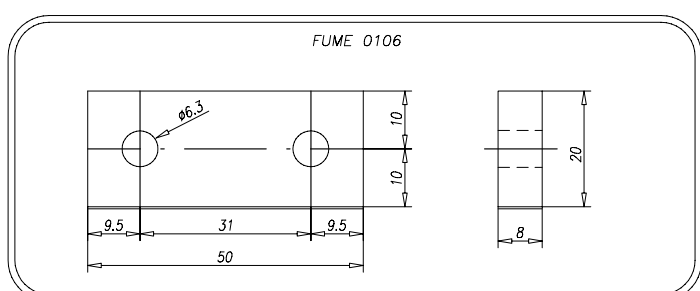
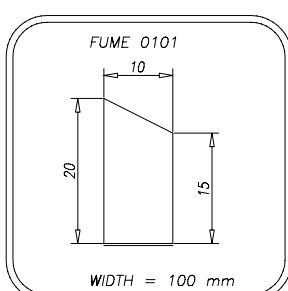
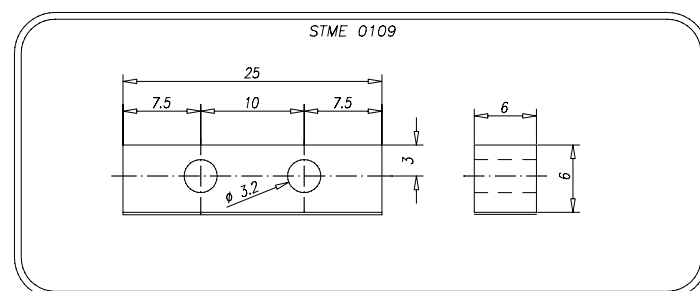
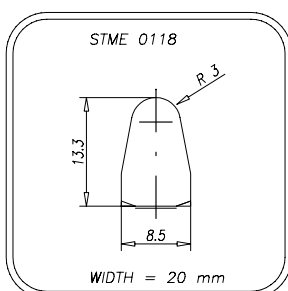
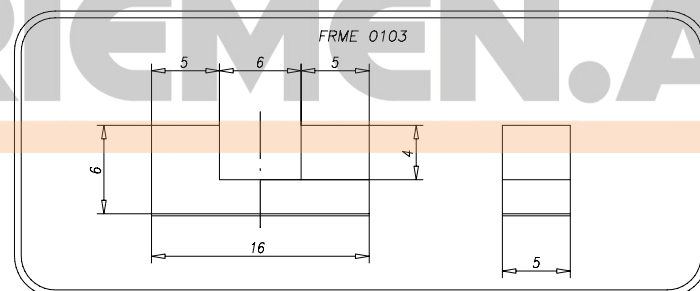
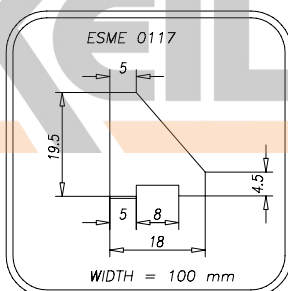
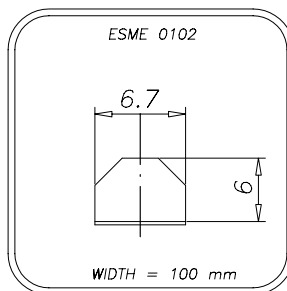
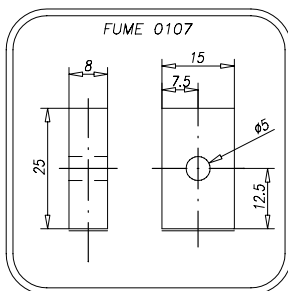
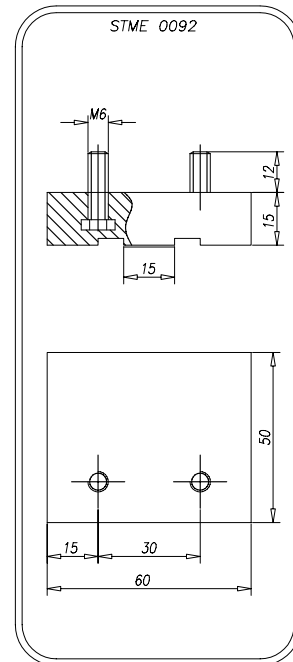
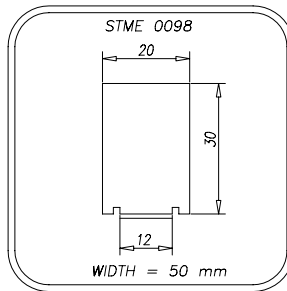
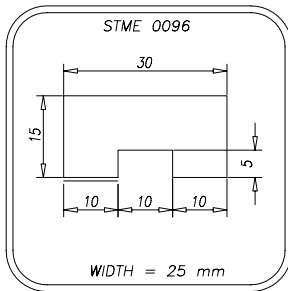


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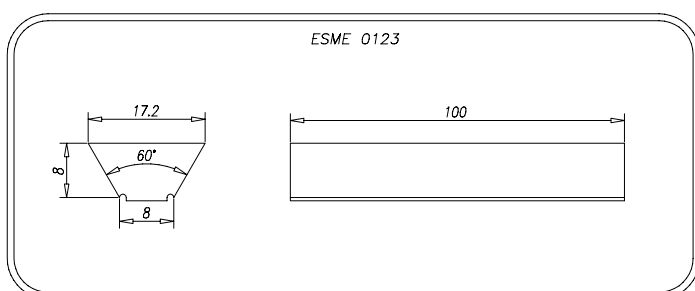
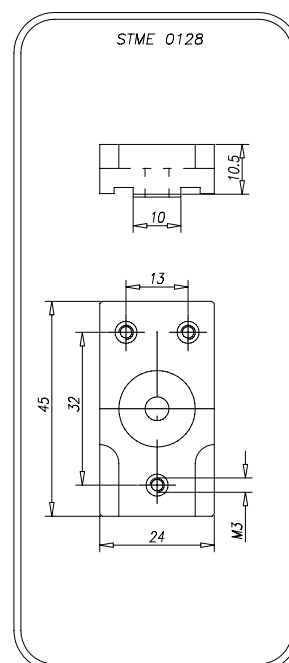
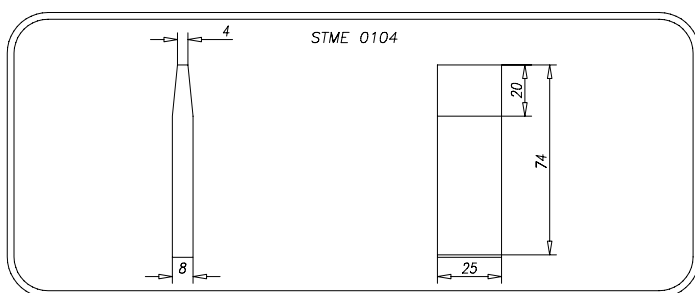
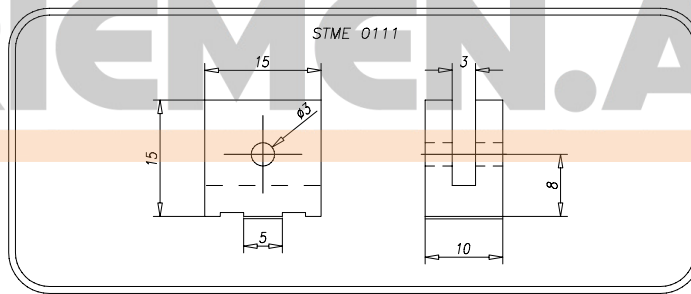
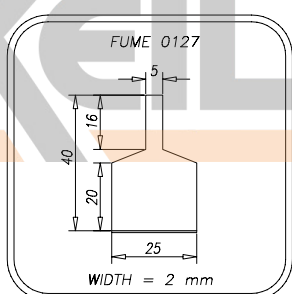
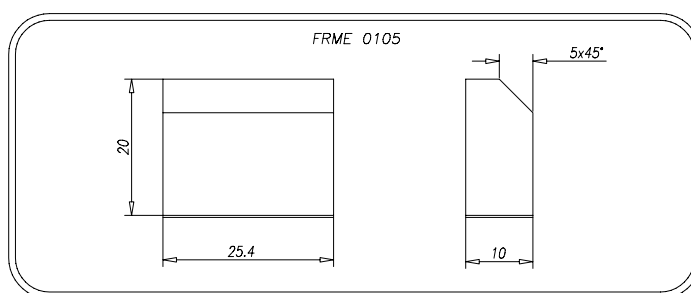
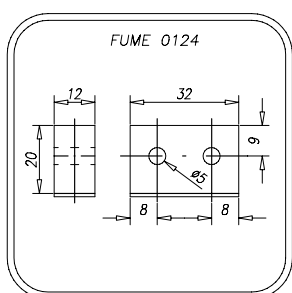
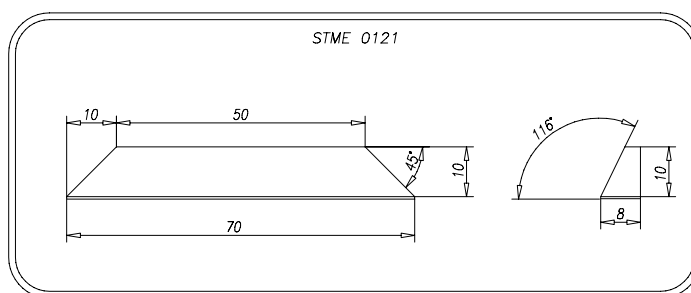
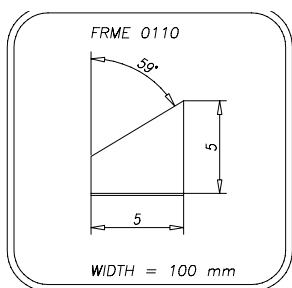


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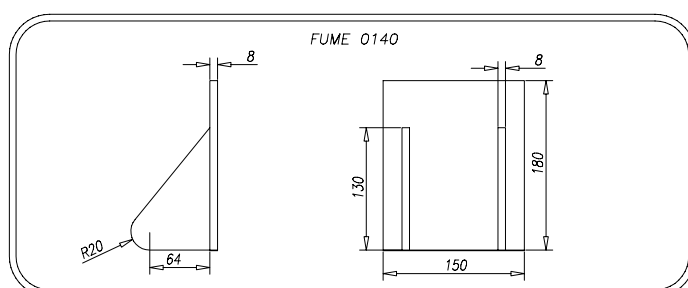
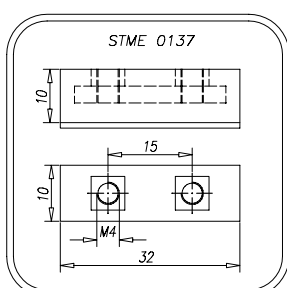
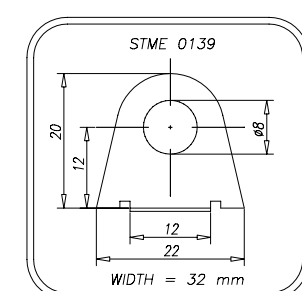
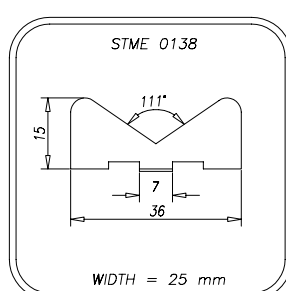
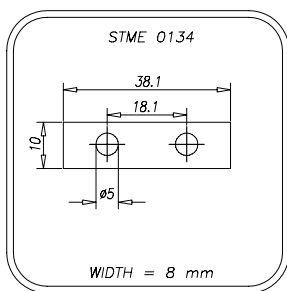
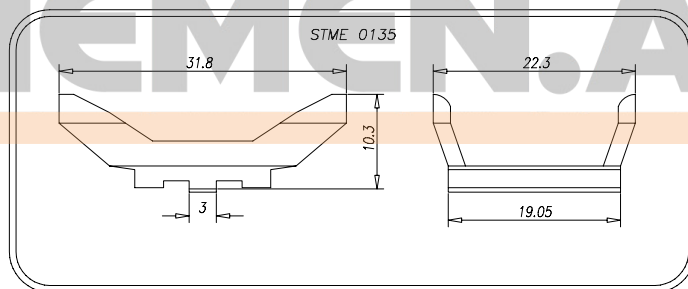
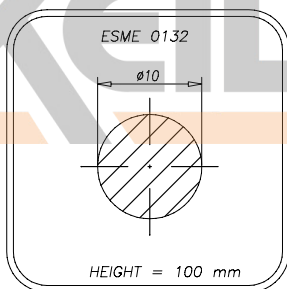
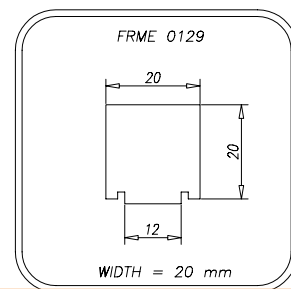
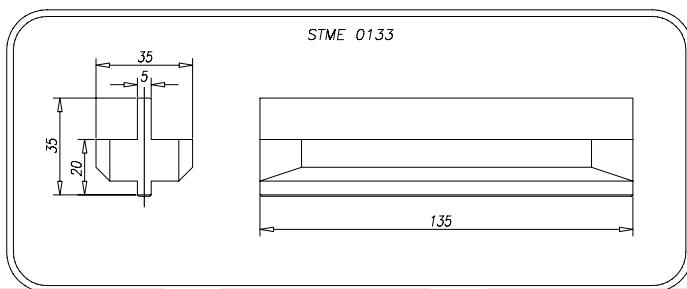
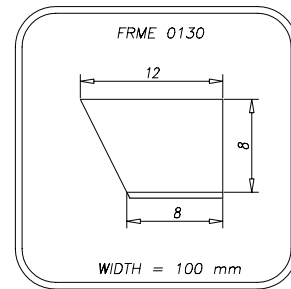
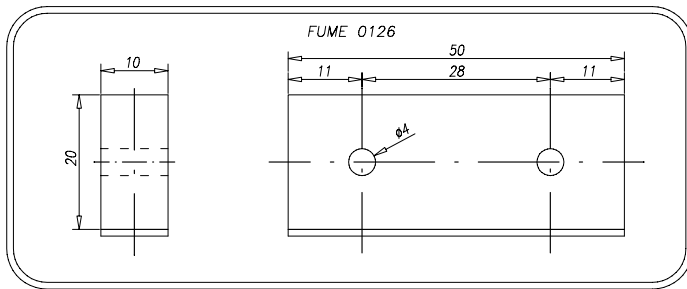


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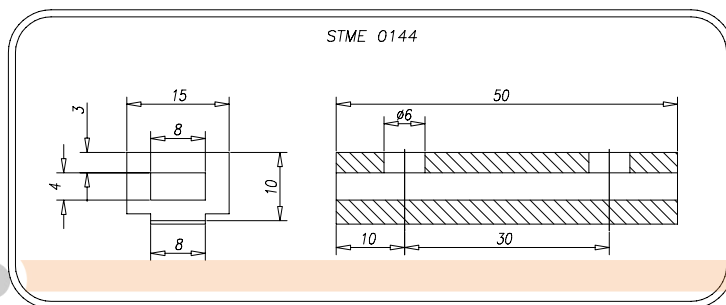
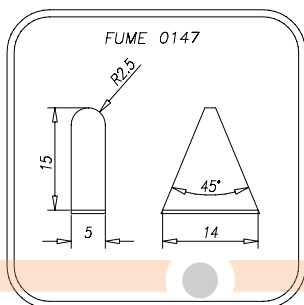
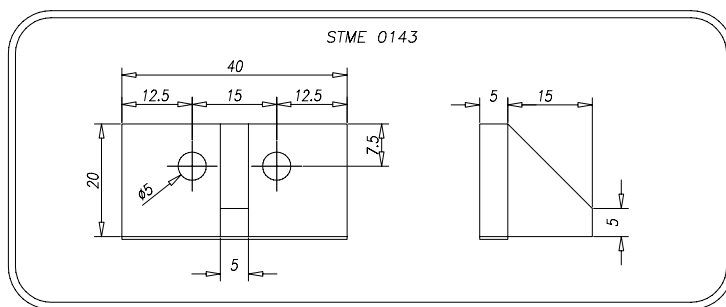
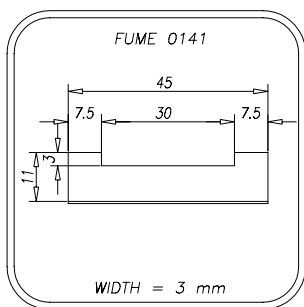


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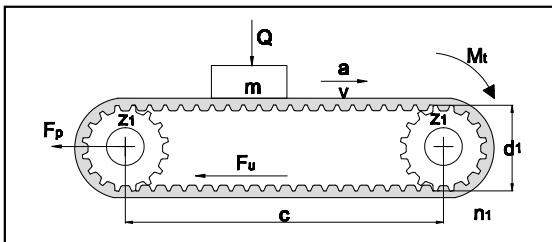
CUSTOMER DATA

Date ____/____/____

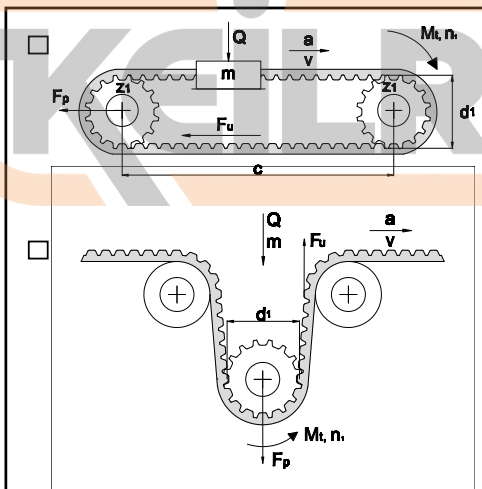
Company Name _____
 Address _____ Zip Code _____
 City _____ State _____ Country _____
 Customer Name/Surname _____
 Office _____ Tel. _____ Fax _____
 e-mail _____

DRIVE INFORMATION TRANSMISSION LAYOUT

Conveyor



Linear motion (choose between the layout below)



Other (If layout is different please sketch it below)



DRIVE INFORMATION (FOR CONVEYOR)

APPLICATION:

Driver pulley 's diameter: _____
 Driven pulley's diameter: _____
 Center distance: _____
 Minimum safety factor needed: _____
 Are there any size limitation? Yes No
 (if yes please indicate):
 Max diameter: _____
 Max width: _____
 Max center distance: _____
 Linear speed: _____
 Acceleration: _____
 Mass: _____

Is there any sliding surface? Yes No
 (if yes please indicate friction coefficient):

Is there any cover on the back? Yes No
 (if yes please indicate the type):

Are cleats required? Yes No
 (if yes please indicate cleats code, otherwise attach drawings)

Working time: < 8h From 8h up to 16h 24h

DATA SHEET

DRIVE INFORMATION (FOR LINEAR MOTION)

APPLICATION:

Driver pulley 's diameter: _____
 Driven pulley's diameter: _____
 Idler diameter: _____
 Center distance : _____
 Minimum safety factor needed: _____
 Are there any size limitation? Yes No
 (if yes please indicate) :
 Max diameter: _____
 Max width: _____
 Max center distance: _____

Linear speed: _____
 Acceleration: _____
 Mass: _____
 Working time: < 8h From 8h up to 16h 24h

Work Temperature (please indicate constant temperature and in case peaks):

Humidity: Standard No standard Other _____

Chemical agents: (oils, grass, aggressive compounds)
 Yes No

In case please indicate type and percentage:

NOTE:



Send us this form to:
 Fax: +39 011-9268487
 Address: Ammega Italia S.p.A. - Via trieste 16, 10075, Mathy, ITALY
 or by e-mail: info@megadynegroup.com

Signature: _____