DIE SETS - MACHINED PLATES

ACCORDING TO DRAWING

CONTENTS

We perform machining on CNC machines.

CNC torch cutting: Max. L x W x thickness: 6,000 x 2,300 x 250 mm
Tolerance to ± 2 mm

Stress relieving: L x W x H max.: 4,500 x 2,300 x 1,600 mm
Max. load: 20 T

Machining:

Grinding: Blanchard and tangential-type. Max. load: 2 T
Max. diagonal: 2,200 mm

Milling on machining centre

Max. stroke (X)	: X x Y x Z: 3,650 x 1,750 x 710 mm	Max. load: 9 T
Max. stroke (Y and Z)	: X x Y x Z: 3,000 x 2,500 x 1,000 mm	Max. load: 6 T
Large capacity	: X x Y x Z: 4,010 x 2,500 x 670 mm	Max. load: 15 T

Deep drilling

Max. stroke	: X x Y x Z: 2,000 x 1,000 x 1,500 mm	Max. load: 15 T

Boring, Drilling, Edge milling, etc.

Mechanical welding: can be carried out upon demand

Handling: Bridge cranes of up to 20T

STEEL PLATE SPECIFICATIONS:

In stock: C25 - C45

Upon demand: Pre-treated steel, high-strength aluminium, etc.

Stress relieving upon request.

TYPES OF PLATES:

The peripheral shapes are torch-cut and deburred.
The edges may be milled for reference surfaces.
If tolerances are not specified for the thickness, the plates will be spotfaced to the minimum extent, i.e. the blank sheet of the specified thickness is ground until our standards of flatness and parallel alignment are obtained
Spot facing = 0 to 3 mm/metre max.

SPECIAL RECTANGULAR DIE SETS:

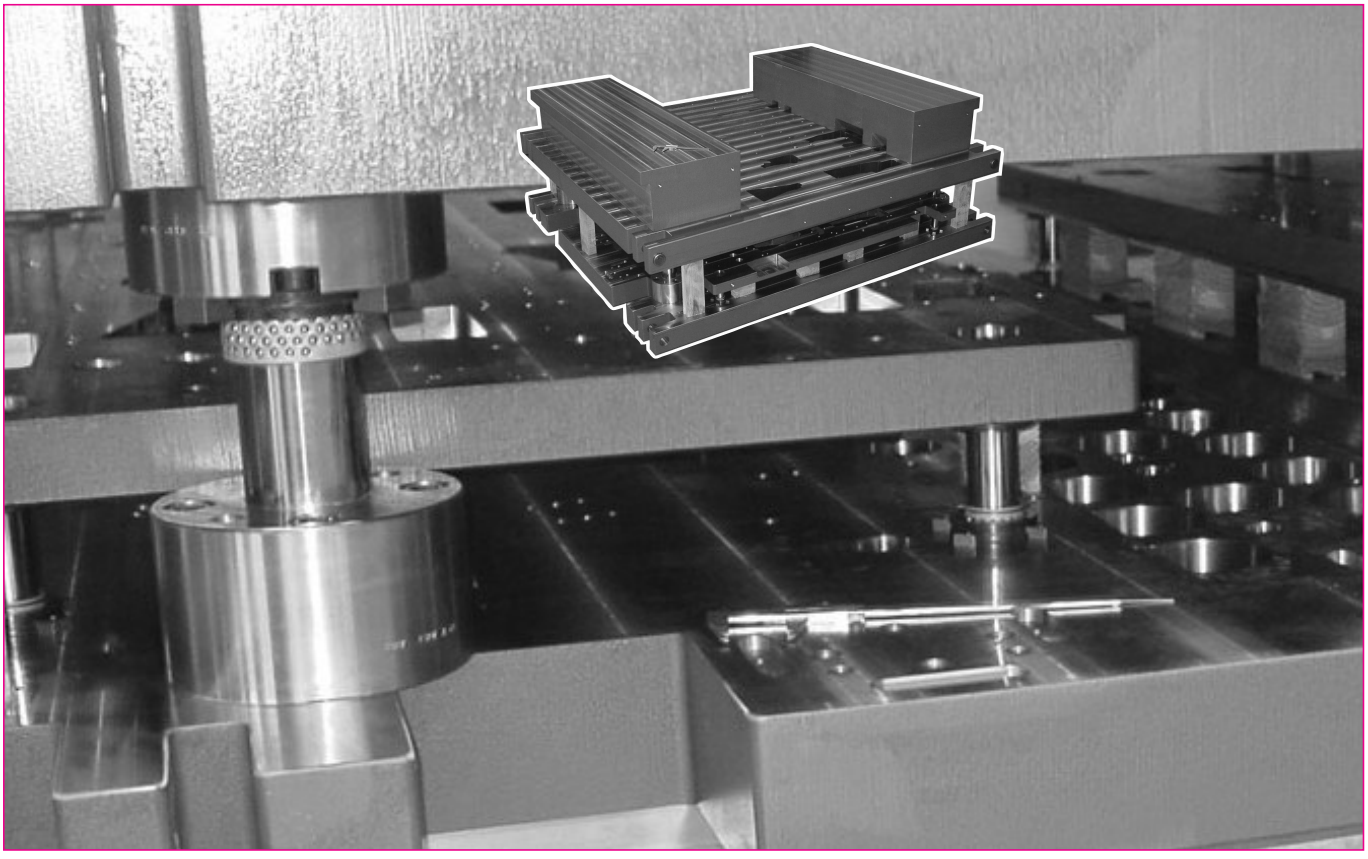
You will find the different types of **rectangular die sets on the following pages.**

To request prices or place your orders, simply photocopy the relevant page, fill it in (with your dimensions, guide elements and any special machining requirements, etc.) and fax it to us.

DIE SETS WITH TORCH-CUTTING AND MACHINING *ACCORDING TO DRAWING*:

We manufacture die sets according to your drawing and design specifications.

Heavy machining removing a lot of metal, carried out after the die set has been assembled, may cause deformations. We recommend that you let us perform these machining operations.



MDL

Center pillars

Company:.....

.....

Town or City:.....Post code:.....

Tel: .....

Fax: .....

☐ ***PRICE REQUEST***

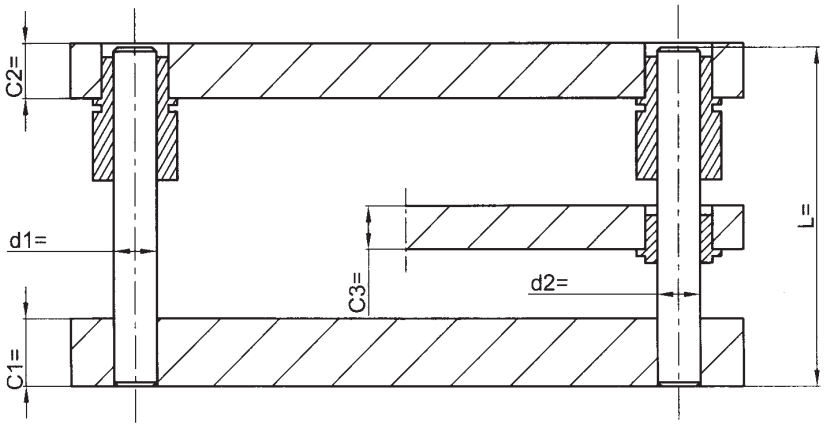
☐ ***ORDER***

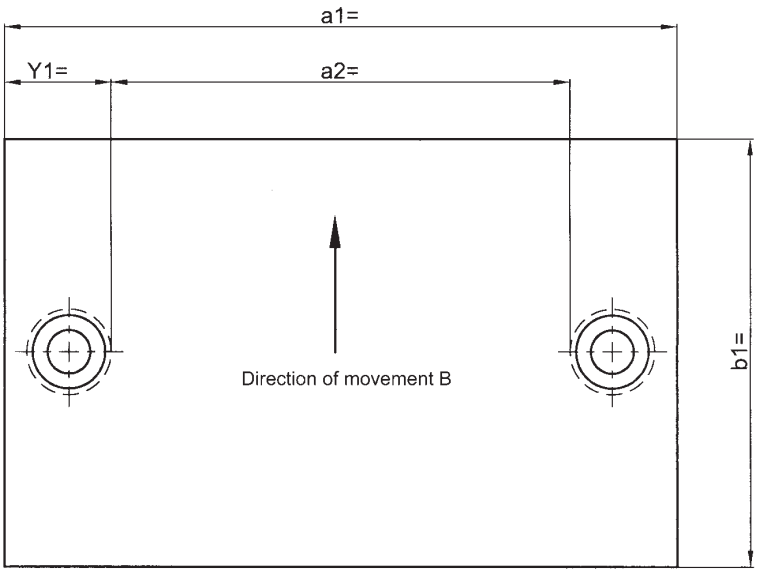
Date: .....

Name: .....

Signature:

Enter your desired dimensions on the drawing.





Direction B: Effective area: **a2 x b1**
a1 = a2 + 2 x Y1

Quantity: .....

Material (C25): .....

Guide element class: 1 - 2 - 3

State references:

Guide pillar:

.....for C...

.....for C...

Bush:

.....for C...

.....for C...

Ball bearing cage:

.....for C...

.....for C...

* See “Guide Elements” catalogue

* For the use of ball bearing cages, the pillars are fitted as standard in C2.

Plate dimensions:

a1=.....mm

b1=.....mm

C1=.....±.....mm

C2=.....±.....mm

C3=.....±.....mm

General tolerances in table on page 2.08 or according to your specifications.
See recommended dimensions for die sets on page 2.09 for Y1, C1, C2 and C3.

PLEASE COPY THIS SHEET AND FAX IT TO MDL

MDL RODIS - BP126 - 68503 GUEBWILLER CEDEX - FRANCE TEL: 03.89.74.24.24 Fax: 03.89.76.68.95

Rear pillars

Company:.....

.....

Town or City:.....Post code:.....

Tel: .....

Fax: .....

☐ ***PRICE REQUEST***

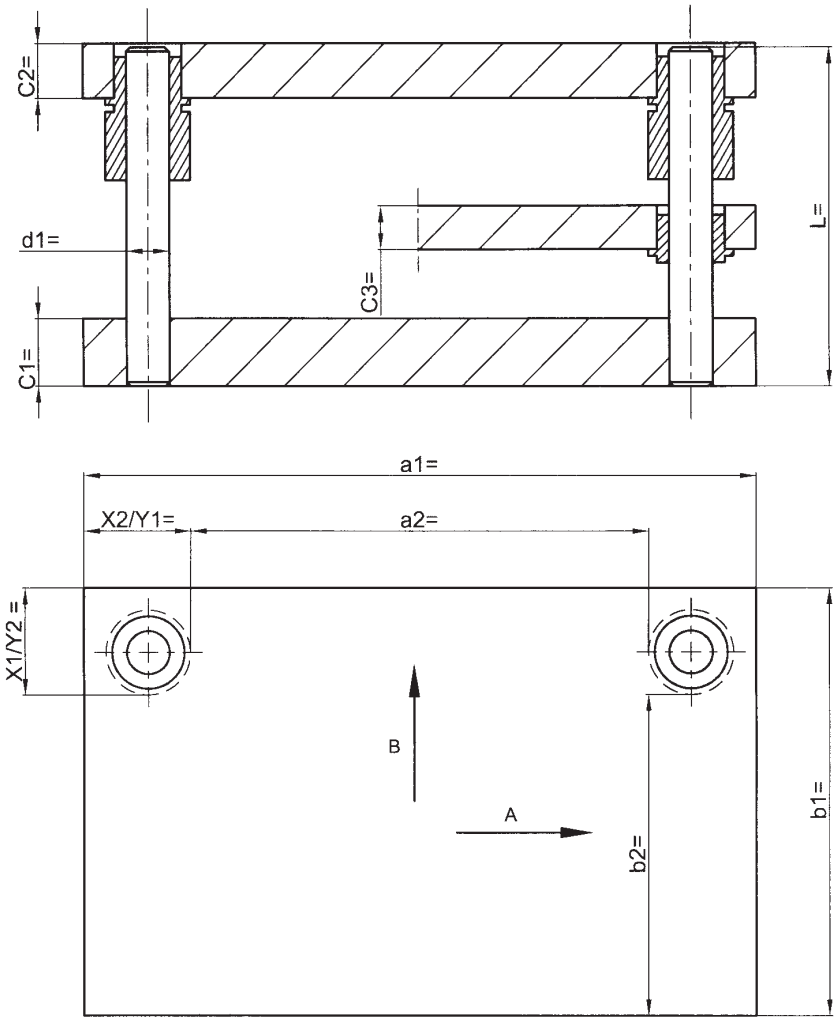
☐ ***ORDER***

Date: .....

Name: .....

Signature:

Enter your desired dimensions on the drawing.



Direction A: Effective area: **a1 x b2**

a1 = a2 + 2 x X2 b1 = b2 + X1

Direction B: Effective area: **a2 x b1**

a1 = a2 + 2 x Y1 b1 = b2 + Y2

Quantity: .....

Material (C25): .....

Guide element class: 1 - 2 - 3

State references:

Guide pillar:

.....for C...

.....for C...

Bush:

.....for C...

.....for C...

Ball bearing cage:

.....for C...

.....for C...

* See “Guide Elements” catalogue

* For the use of ball bearing cages, the pillars are fitted as standard in C2.

Direction of movement.

☐ → A (standard)

☐ ↑ B

Plate dimensions:

a1=.....mm

b1=.....mm

C1=.....±.....mm

C2=.....±.....mm

C3=.....±.....mm

General tolerances in table on page 2.08 or according to your specifications.
See recommended dimensions for die sets on page 2.09 for X1, X2, Y1, Y2, C1, C2 and C3.

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MDL RODIS - BP126 - 68503 GUEBWILLER CEDEX - FRANCE TEL: 03.89.74.24.24 Fax: 03.89.76.68.95

SPECIAL RECTANGULAR DIE SETS

Form
CS
Diagonal pillars

Company:.....

.....

Town or City:.....Post code:.....

Tel: .....

Fax: .....

☐ ***PRICE REQUEST***

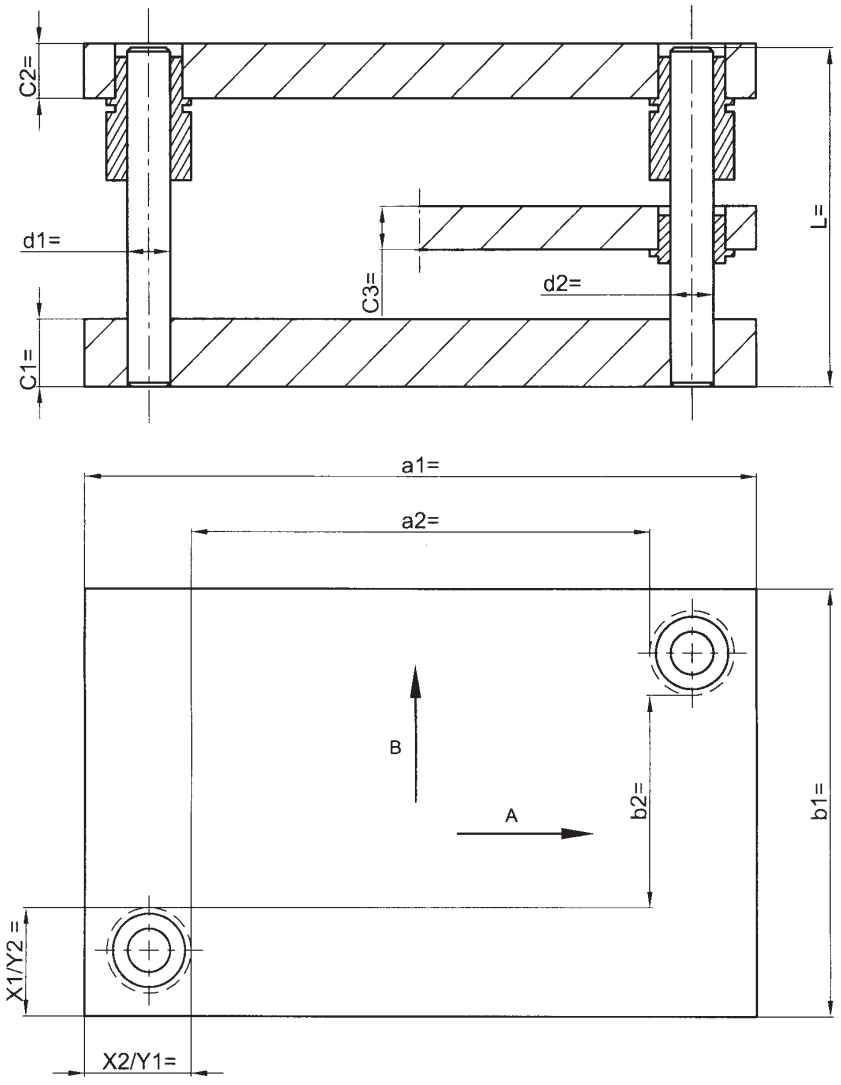
☐ ***ORDER***

Date: .....

Name: .....

Signature:

Enter your desired dimensions on the drawing.



Direction A: Effective area: **a1 x b2**
a1 = a2 + 2 x X2 b1 = b2 + 2 x X1

Direction B: Effective area: **a2 x b1**
a1 = a2 + 2 x Y1 b1 = b2 + 2 x Y2

Quantity: .....

Material (C25): .....

Guide element class: 1 - 2 - 3

State references:

Guide pillar:

.....for C...

.....for C...

Bush:

.....for C...

.....for C...

Ball bearing cage:

.....for C...

.....for C...

* See “Guide Elements” catalogue

* For the use of ball bearing cages, the pillars are fitted as standard in C2.

Direction of movement.

☐ → A (standard)

☐ ↑ B

Plate dimensions:

a1=.....mm

b1=.....mm

C1=.....±.....mm

C2=.....±.....mm

C3=.....±.....mm

General tolerances in table on page 2.08 or according to your specifications.
See recommended dimensions for die sets on page 2.09 for X1, X2, Y1, Y2, C1, C2 and C3.

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MDL RODIS - BP126 - 68503 GUEBWILLER CEDEX - FRANCE TEL: 03.89.74.24.24 Fax: 03.89.76.68.95

SPECIAL RECTANGULAR DIE SETS

Form DS
4 pillars

Company:.....

.....

Town or City:.....Post code:.....

Tel: .....

Fax: .....

☐ ***PRICE REQUEST***

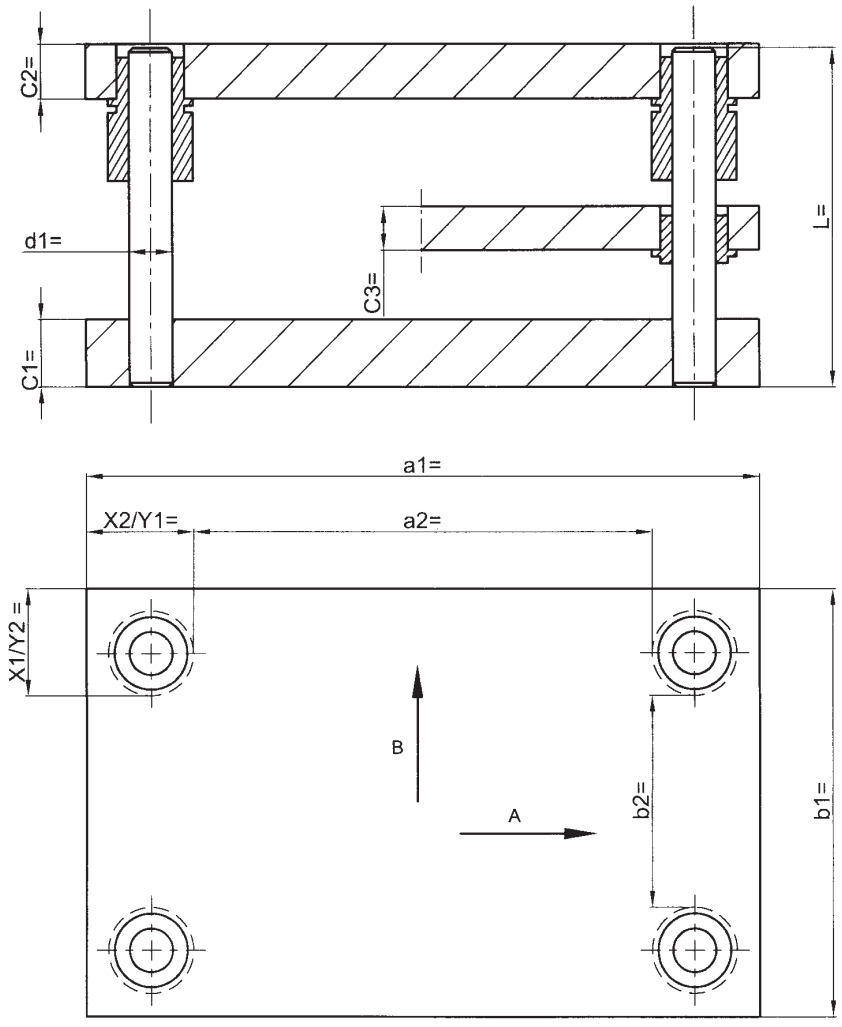
☐ ***ORDER***

Date: .....

Name: .....

Signature:

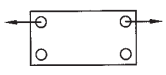
Enter your desired dimensions on the drawing.



Direction A: Effective area: **a1 x b2**
a1 = a2 + 2 x X2 b1 = b2 + 2 x X1

Direction B: Effective area: **a2 x b1**
a1 = a2 + 2 x Y1 b1 = b2 + 2 x Y2

Foolproofing: 2 mm offset for steel and bronze guide bushes
3 mm offset for ball bearing guide bushes



Quantity: .....

Material (C25): .....

Guide element class: 1 - 2 - 3

State references:

Guide pillar:

.....for C...

.....for C...

Bush:

.....for C...

.....for C...

Ball bearing cage:

.....for C...

.....for C...

* See "Guide Elements" catalogue
* For the use of ball bearing cages, the pillars are fitted as standard in C2.

Direction of movement.

☐ → A (standard)

☐ ↑ B

Plate dimensions:

a1=.....mm

b1=.....mm

C1=.....±.....mm

C2=.....±.....mm

C3=.....±.....mm

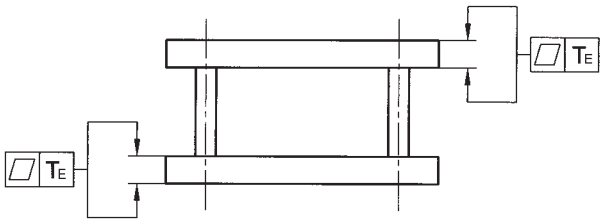
General tolerances in table on page 2.08 or according to your specifications.
See recommended dimensions for die sets on page 2.09 for X1, X2, Y1, Y2, C1, C2 and C3.

PLEASE COPY THIS SHEET AND FAX IT TO MDL

MDL RODIS - BP126 - 68503 GUEBWILLER CEDEX - FRANCE TEL: 03.89.74.24.24 Fax: 03.89.76.68.95

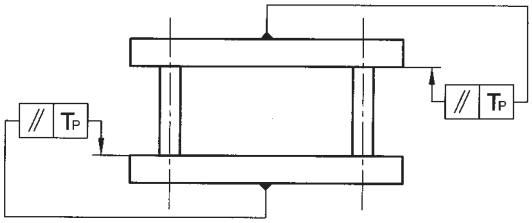
FLATNESS OF PLATE FACES

Thickness	T_E
E > 30 mm	0.004 / 100 mm
20 < E < 30 mm	0.008 / 100 mm



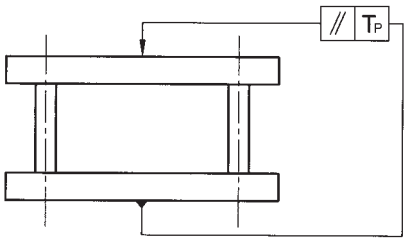
PARALLEL ALIGNMENT OF PLATE FACES

from mm	to mm	T_P
0	100	0.006
100	200	0.012
200	300	0.018



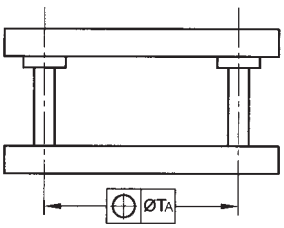
PARALLEL ALIGNMENT OF EXTERNAL FACES OF DIE SET

from mm	to mm	T_P
0	100	0.008
100	200	0.012
200	300	0.018
300	400	0.024
400	500	0.030
500	600	0.036



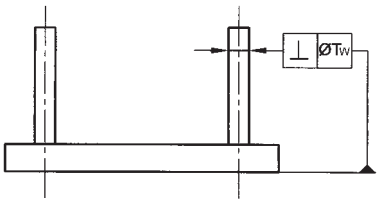
LOCATION

T_A: ±12 µm/m + additional 5 µm/m



PERPENDICULARITY

T_W
0,015 / 100 mm



ADJUSTMENT OF BORES

Guide pillar	Guide bush
d = R6	D = H6

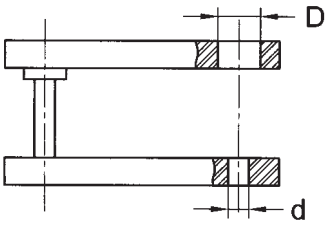
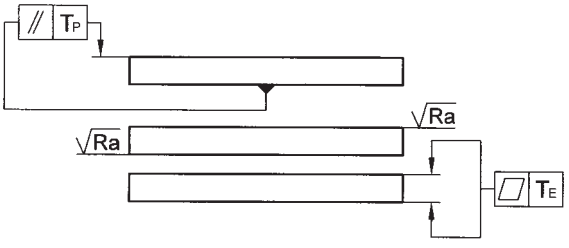


PLATE WITH MIN. SPOTFACING

T_E	T_P	R_A
0.006/100mm	0.006/100mm	3



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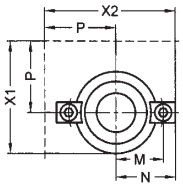
RECOMMENDED PILLAR DIAMETER ACCORDING TO LENGTH a1 OF PLATE

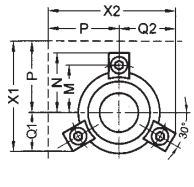
Length a1	150 - 300	350 - 500	550 - 700	750 - 1000	1100 - 1900	2000 - 2500
Recommended d1	25	32	40	50	63	80

DIRECTION OF MOVEMENT - A - left - right

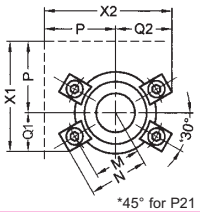
2 clamps



3 clamps

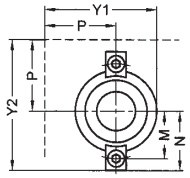


4 clamps

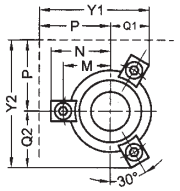


DIRECTION OF MOVEMENT - B - front - back

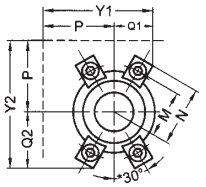
2 clamps



3 clamps



4 clamps



STANDARD POSITION OF GUIDES AND FIXINGS

GUIDE PILLAR P10 - P21 - P22

Diameter	**19 - 20**	**24 - 25**	**30 - 32**	**38 - 40**	**48 - 50**	**63**	**80**
no. of P21 clamps	3 x M5	3 x M6	3 x M6	4 x M8	4 x M8	4 x M8	4 x M8
GUIDE BUSH B10 - B20							
P	30	40	45	50	60	65	75
X1 / Y1	46.3	64.2	71	81.5	97.5	111.5	132.5
X2 / Y2	55.5	74	82	94.1	112.3	122	141.6
no. of clamps	2 x M5	3 x M6	3 x M6	4 x M8	4 x M8	4 x M8	4 x M8
GUIDE BUSH B12 - B22							
P	30	40	45	50	60	65	75
X1 / Y1	46.3	65.3	72	83.8	97.5	102.5	132.5
X2 / Y2	55.5	76.6	84.6	99	114.2	127.5	146.6
no. of clamps	2 x M5	3 x M6	3 x M6	4 x M8	4 x M8	4 x M8	4 x M8
BALL BEARING GUIDE BUSH B30 - B40							
P	-	45	50	55	65	70	80
X1 / Y1	-	71	81.5	92.5	111.5	124	142.5
X2 / Y2	-	82	94.1	104.3	122	134	151.8
no. of B40 clamps	-	3 x M6	3 x M8	4 x M8	4 x M8	4 x M8	4 x M8
BALL BEARING GUIDE BUSH intermediate plate B42							
P	-	45	50	55	65	-	-
X1 / Y1	-	72	79.3	92.5	111.5	-	-
X2 / Y2	-	84.6	93.5	103.7	121.5	-	-
no. of clamps	-	3 x M6	3 x M6	4 x M6	4 x M6	-	-

RECOMMENDED PLATE THICKNESS ACCORDING TO TYPE OF GUIDE ELEMENT USED

Diameter	P10	P21	P22	B10-B20	B12-B22	B30	B40	B42	Plates
19 - 20	25	25	38	-	-	-	-	-	C1
	20	20	30	20	20	-	-	-	C2
	-	-	-	20	20	-	-	-	C3
24 - 25	32	32	46	-	-	32	32	-	C1
	25	25	38	25	25	32	32	-	C2
	-	-	-	25	25	-	-	22	C3
30 - 32	40	40	56	-	-	40	40	-	C1
	32	32	48	28	32	40	40	-	C2
	-	-	-	25	28	-	-	22	C3
38 - 40	50	50	66	-	-	50	50	-	C1
	40	40	58	32	40	50	50	-	C2
	-	-	-	32	50	-	-	32	C3
48 - 50	58	58	76	-	-	58	58	-	C1
	50	50	68	38	50	58	58	-	C2
	-	-	-	32	50	-	-	38	C3
63	63	63	86	-	-	63	63	-	C1
	58	58	78	50	63	63	63	-	C2
	-	-	-	40	63	-	-	-	C3
80	68	68	98	-	-	-	-	-	C1
	60	60	92	50	80	-	-	-	C2
	-	-	-	40	80	-	-	-	C3

STEEL PLATE SPECIFICATIONS:

In stock: C25 - C45

Upon demand: Pre-treated steel, high-strength aluminium, etc.

Stress relieving upon request.

TYPES OF PLATES:

The peripheral shapes are torch-cut and deburred.
The edges can be milled for reference surfaces.
If tolerances are not specified for the thickness, the plates will be spotfaced to the minimum extent, i.e. the blank sheet of the specified thickness is ground until our standards of flatness and parallel alignment are obtained
Spot facing = Max. of 0 to 3 mm/metre

PLATES WITH TORCH CUTTING AND SPECIAL MACHINING:

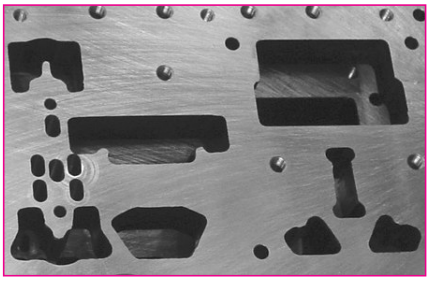
We can torch-cut, grind and machine **plates according to your drawings**.
All of our plates are annealed.
If these machining operations require the removal of large amounts of material, it is in your interest to let us perform the roughing (see finish). We control the risks of deformations due to internal stresses.

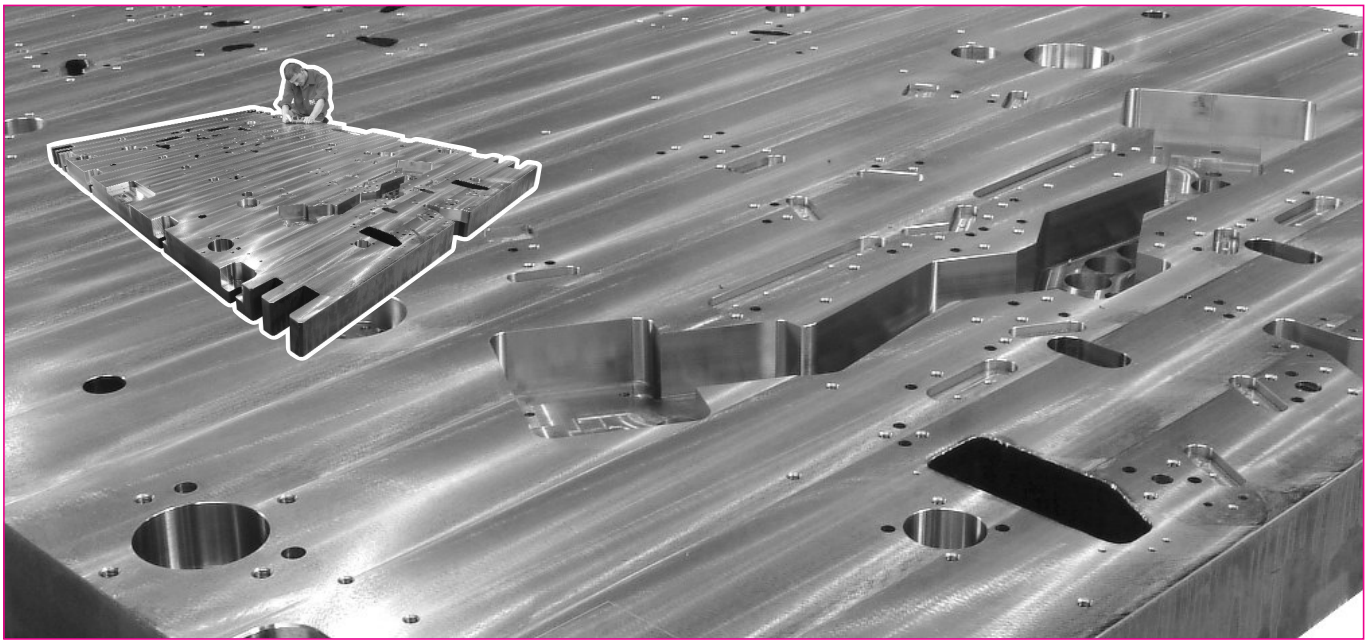
UNFINISHED THICKNESSES OF PLATES KEPT IN STOCK: Other thicknesses available upon request.

C25: 12 - 15 - 20 - 25 - 30 - 35 - 40 - 42 - 45 - 50 - 52 - 55 - 60 - 65 - 70 - 75 - 80 - 85 - 90 - 95 - 100 - 105 - 110 - 120 -150
C45: 15 - 20 - 25 - 30 - 35 - 40 - 45 - 50 - 55 - 60 - 65 - 70 - 80 - 85 - 90 - 95 - 100 - 105 - 110 - 120 - 130 - 140 - 160

FOR YOUR PLATE ORDERS

Please specify:
- Steel grade of the plate
- Number of plates
- External dimensions
- Spotfaced or toleranced faces
- Torch-cut or milled edges
- **Special machining operations with detailed drawing**





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