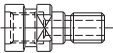
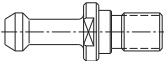
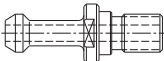
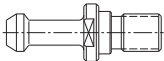
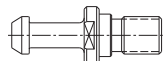
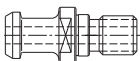
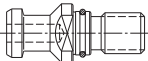
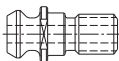
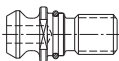


00399 000000

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IF YOU DON'T FIND YOUR NEED IN OUR
STANDARD PROGRAM, WE ASK YOU KINDLY TO
FILL UP PAGE 301.

THANK YOU

Fig. 1

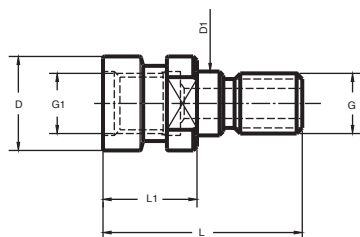


Fig. 2

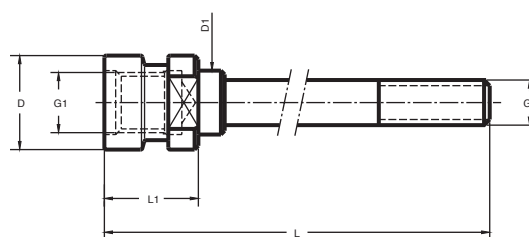
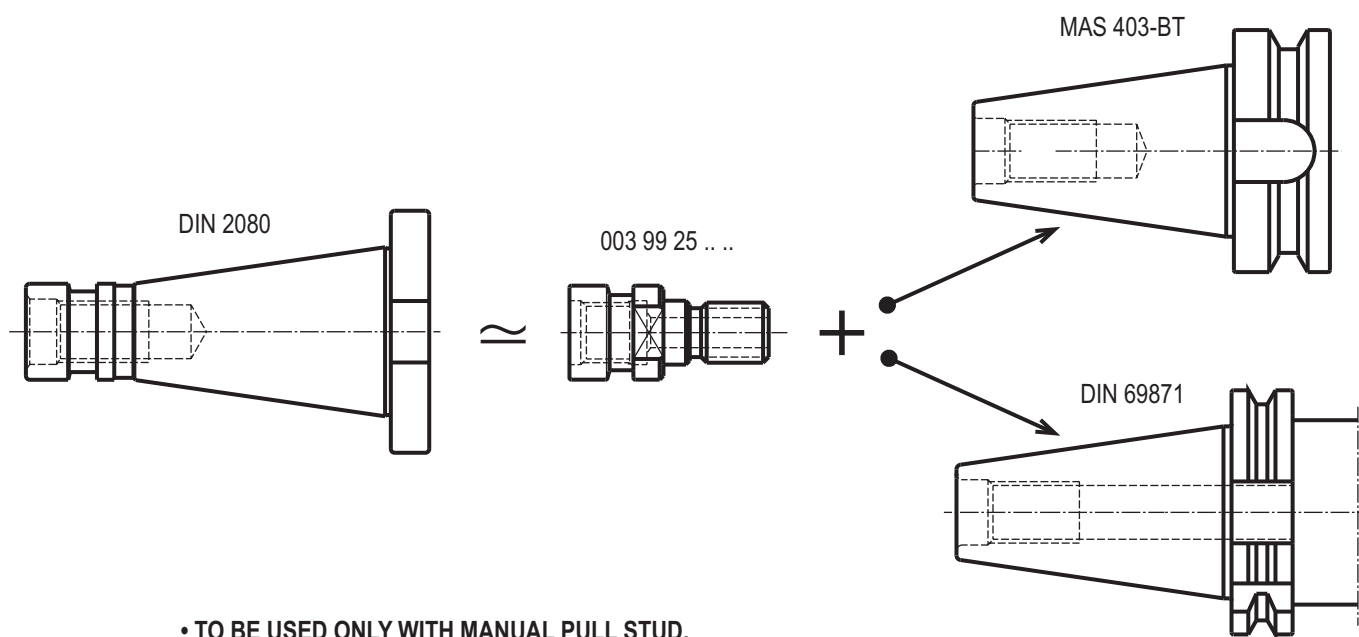


FIGURE	G	G ₁	L	L ₁	D	D ₁	COD.
1	M-16	M-16	52	25,15	25	17	003 99 25 02 00
1	M-24	M-24	65	25,20	39,3	25	003 99 25 04 00
2	M-12	M-16	111	25,15	25	17	003 99 25 02 40 
2	M-16	M-16	117	25,15	25	17	003 99 25 02 50 



Product outside of our present production program. Price subject to availability.

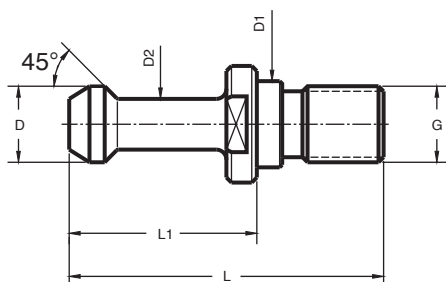


003 99 14
94

MAS 403 BT PULL STUDS ($\alpha 45^\circ$)



(Fig. 1)
SHORT



(Fig. 2)
LONG

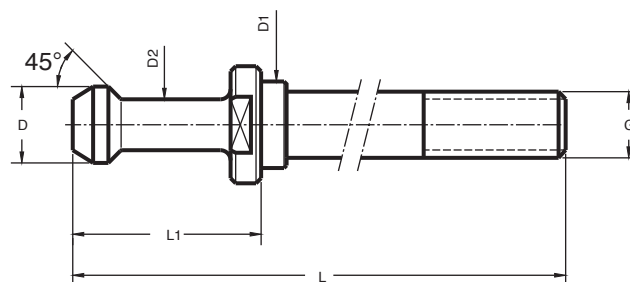


FIGURE	D	G	L	L ₁	D ₁	D ₂	COD.
1	11	M-12	43	23	12,5	7	003 99 14 01 00
1	15	M-16	60	35	17	10	003 99 14 02 00
1	23	M-24	85	45	25	17	003 99 14 04 00
(*) 1	15	M-16	57	32,15	17	10	003 99 94 02 00
2	11	M-10	90	23	12,5	7	003 99 14 01 30 ⚠
2	11	M-12	94	23	12,5	7	003 99 14 01 40 ⚠
2	15	M-12	100	35	17	10	003 99 14 02 01 ⚠
2	15	M-12	118	35	17	10	003 99 14 02 40 ⚠
2	15	M-12	178	35	17	10	003 99 14 02 41 ⚠
2	15	M-16	100	35	17	10	003 99 14 02 02 ⚠
2	15	M-16	124	35	17	10	003 99 14 02 50 ⚠
2	19	M-16	110	40	21	14	003 99 14 03 02 ⚠
2	23	M-20	165	45	25	17	003 99 14 04 60 ⚠

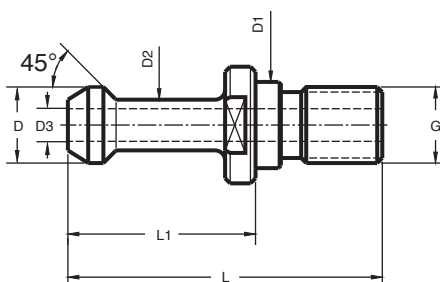
⚠ Product outside of our present production program. Price subject to availability.

(*) These pull studs are not according to MAS 403-BT.

003 99 34

MAS 403 BT PULL STUDS ($\alpha 45^\circ$)

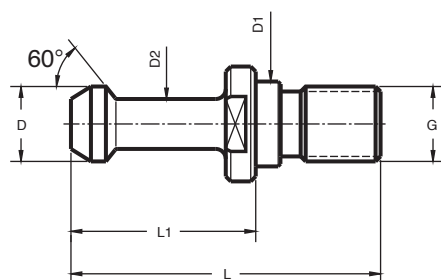
With through coolant channel



D	G	L	L ₁	D ₁	D ₂	D ₃	COD.
15	M-16	60	35	17	10	4	003 99 34 02 00
23	M-24	85	45	25	17	8	003 99 34 04 00

(Fig. 1)

SHORT



(Fig. 2)

LONG

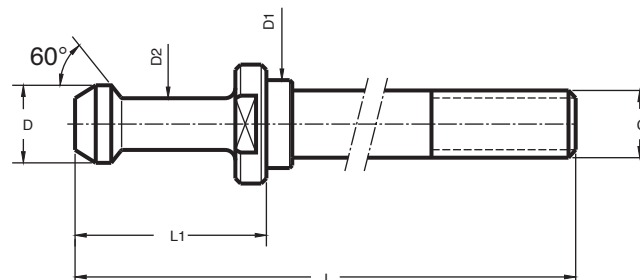


FIGURE	D	G	L	L ₁	D ₁	D ₂	COD.
1	11	M-12	43	23	12,5	7	003 99 15 01 00
1	15	M-16	60	35	17	10	003 99 15 02 00
1	19	M-20	70	40	21	14	003 99 15 03 00 ▼
1	23	M-24	85	45	25	17	003 99 15 04 00
(*) 1	15	M-16	57	32,15	17	10	003 99 95 02 00
2	11	M-10	90	23	12,5	7	003 99 15 01 30 ▼
2	11	M-10	145	23	12,5	7	003 99 15 01 31 ▼
2	11	M-12	94	23	12,5	7	003 99 15 01 40 ▼
2	11	M-12	143	23	12,5	7	003 99 15 01 41 ▼
2	13	M-10	108	28	12,5	8,5	003 99 15 11 30 ▼
2	13	M-12	112	28	12,5	8,5	003 99 15 11 40 ▼
2	15	M-12	100	35	17	10	003 99 15 02 01 ▼
2	15	M-12	118	35	17	10	003 99 15 02 40 ▼
2	15	M-12	178	35	17	10	003 99 15 02 41 ▼
2	15	M-16	100	35	17	10	003 99 15 02 02 ▼
2	15	M-16	124	35	17	10	003 99 15 02 50 ▼
2	15	M-16	194	35	17	10	003 99 15 02 51 ▼
2	23	M-16	160	45	25	17	003 99 15 04 50 ▼
2	23	M-20	165	45	25	17	003 99 15 04 60 ▼
2	23	M-20	270	45	25	17	003 99 15 04 61 ▼

▼ Product outside of our present production program. Price subject to availability.

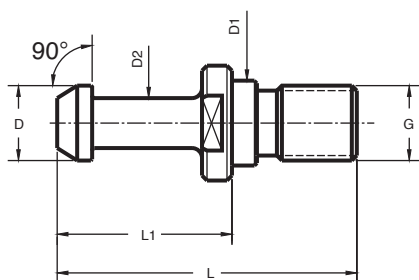
(*) These pull studs are not according to MAS 403-BT.

003 99 ¹¹₁₈₂₃

MAS 403 BT PULL STUDS ($\alpha 90^\circ$)



(Fig. 1)
SHORT



(Fig. 2)
LONG

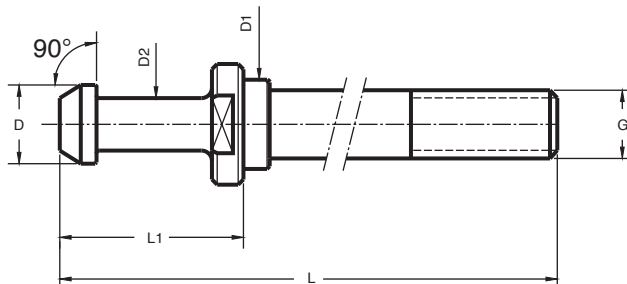
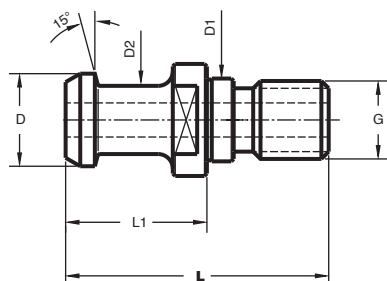


FIGURE	D	G	L	L ₁	D ₁	D ₂	COD.
1	15	M-16	50	25	17	10	003 99 18 02 00
*1	24	M-24	71	31	25	18	003 99 18 04 00
1	15	M-16	60	35	17	10	003 99 23 02 00
1	23	M-24	85	45	25	17	003 99 23 04 00
2	15	M-12	110	26,75	17	10	003 99 11 02 40 ⚠
2	15	M-16	116	26,75	17	10	003 99 11 02 50 ⚠
2	23	M-20	165	45,2	25	17	003 99 11 04 60 ⚠
2	15	M-12	108	25	17	10	003 99 18 02 40 ⚠
2	15	M-16	114	25	17	10	003 99 18 02 50 ⚠
2	15	M-12	118	35	17	10	003 99 23 02 40 ⚠
2	15	M-12	178	35	17	10	003 99 23 02 41 ⚠
2	15	M-16	124	35	17	10	003 99 23 02 50 ⚠
2	23	M-20	165	45	25	17	003 99 23 04 60 ⚠

⚠ Product outside of our present production program. Price subject to availability.

(*) Pull stud with through coolant hole.

(Fig. 1)
SHORT



(Fig. 2)
LONG

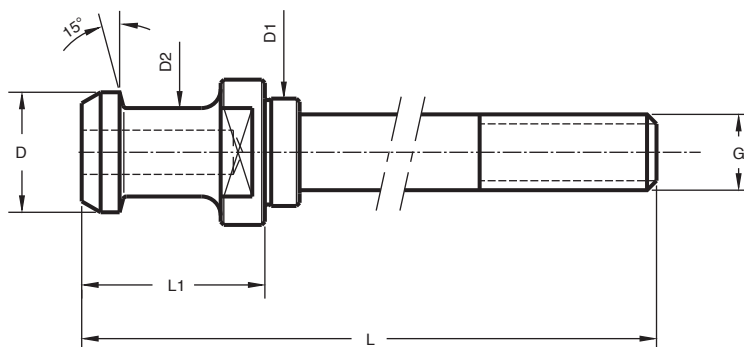


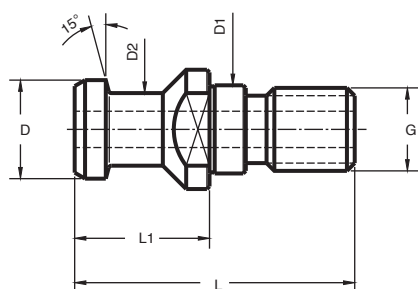
FIGURE	D	G	L	L ₁	D ₁	D ₂	COD.
1	12	M-12	43	23,4	12,5	8	003 99 31 01 00
1	19	M-16	54	29	17	14	003 99 31 02 00
1	23	M-20	60	30	21	17	003 99 31 03 00
1	28	M-24	74	34	25	21	003 99 31 04 00
2	12	M-10	90	23,4	12,5	8	003 99 31 01 30 
2	12	M-10	145	23,4	12,5	8	003 99 31 01 31 
2	12	M-12	94	23,4	12,5	8	003 99 31 01 40 
2	12	M-12	143	23,4	12,5	8	003 99 31 01 41 
2	19	M-12	94	29	17	14	003 99 31 02 01 
2	19	M-12	112	29	17	14	003 99 31 02 40 
2	19	M-12	172	29	17	14	003 99 31 02 41 
2	19	M-16	94	29	17	14	003 99 31 02 02 
2	19	M-16	118	29	17	14	003 99 31 02 50 
2	19	M-16	188	29	17	14	003 99 31 02 51 
2	28	M-20	154	34	25	21	003 99 31 04 60 
2	28	M-20	260	34	25	21	003 99 31 04 61 

 Product outside of our present production program. Price subject to availability.

003 99 16 ... DIN 69872 - ISO 7388/2 PULL STUDS ($\alpha 15^\circ$)

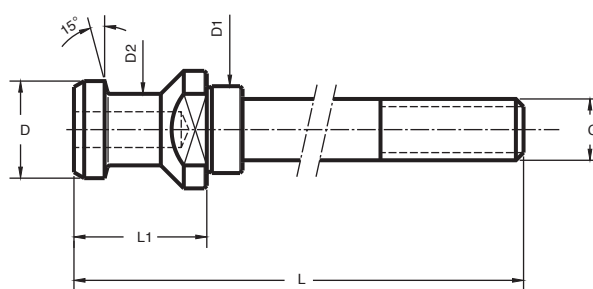


(Fig. 1)
SHORT



DIN 69872 Form A - ISO 7388/2 Form A

(Fig. 2)
LONG



DIN 69872 Form A - ISO 7388/2 Form A

FIG.	D	G	L	L ₁	D ₁	D ₂	COD.
*1	13	M-12	44	24	13	9	003 99 16 01 00
1	19	M-16	54	26	17	14	003 99 16 02 00
1	28	M-24	74	34	25	21	003 99 16 04 00
2	13	M-12	94	24	13	9	003 99 16 01 40 ⚠
2	19	M-12	92	26	17	14	003 99 16 02 01 ⚠
2	19	M-12	112	26	17	14	003 99 16 02 40 ⚠
2	19	M-12	171	26	17	14	003 99 16 02 41 ⚠
2	19	M-16	93	26	17	14	003 99 16 02 02 ⚠
2	19	M-16	118	26	17	14	003 99 16 02 50 ⚠
2	19	M-16	183	26	17	14	003 99 16 02 51 ⚠
2	23	M-16	100	30	21	17	003 99 16 03 02 ⚠
2	23	M-16	135	30	21	17	003 99 16 03 50 ⚠
2	23	M-16	125	30	21	17	003 99 16 03 52 ⚠

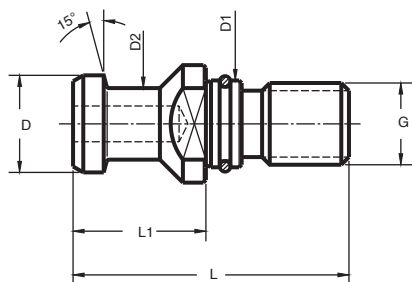
⚠ Product outside of our present production program. Price subject to availability.

* Without through holes.

003 99 26 ... DIN 69872 Form B PULL STUDS ($\alpha 15^\circ$)



(Fig. 1)
SHORT



(Fig. 2)
LONG

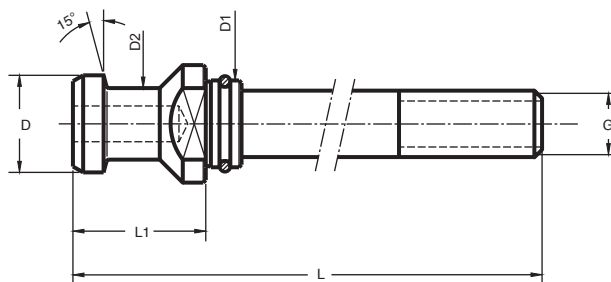


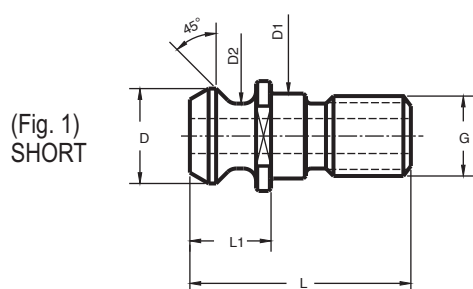
FIG.	D	G	L	L ₁	D ₁	D ₂	COD.	
1	13	M-12	44	24	13	9	003 99 26 01 00 ⚠	305 04 01 11 00
1	19	M-16	54	26	17	14	003 99 26 02 00	305 04 01 41 50
1	23	M-20	65	30	21	17	003 99 26 03 00 ⚠	305 04 01 72 00
1	28	M-24	74	34	25	21	003 99 26 04 00	305 04 02 02 50
2	19	M-12	112	26	17	14	003 99 26 02 40 ⚠	305 04 01 41 50
2	19	M-16	118	26	17	14	003 99 26 02 50 ⚠	305 04 01 41 50

⚠ Product outside of our present production program. Price subject to availability.

003 99 17
32

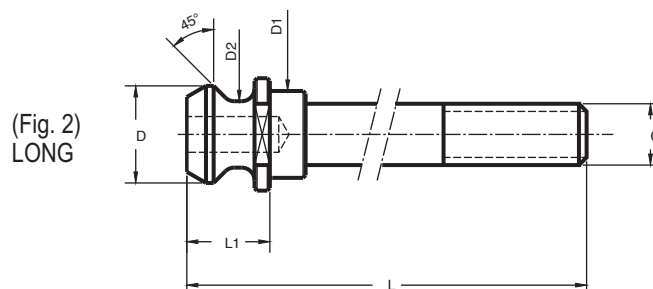
ISO 7388/2 PULL STUDS ($\alpha 45^\circ$)

With through coolant channel



(Fig. 1)
SHORT

ISO 7388/2 Form B



(Fig. 2)
LONG

ISO 7388/2 Form B

FIG.	D	G	L	L ₁	D ₁	D ₂	COD.
1	13,20	M-12	34	11,65	13	9,15	003 99 17 01 00
1	18,80	M-16	44,5	16,25	17	12,80	003 99 17 02 00
*1	18,80	M-16	44,5	19,10	17	12,80	003 99 32 02 00
1	23,90	M-20	56	20,80	21	16,15	003 99 17 03 00
1	29	M-24	65,5	25,40	25	19,45	003 99 17 04 00
*1	29	M-24	65,5	25,20	25	19,45	003 99 32 04 00
2	13,20	M-12	80	11,65	13	9,15	003 99 17 01 30 ⚠
2	18,80	M-12	82	16,25	17	12,80	003 99 17 02 01 ⚠
2	18,80	M-12	161	16,25	17	12,80	003 99 17 02 41 ⚠
2	18,80	M-16	83	16,25	17	12,80	003 99 17 02 02 ⚠
2	18,80	M-16	108	16,25	17	12,80	003 99 32 02 50 ⚠
2	18,80	M-16	178	19,10	17	12,80	003 99 32 02 51 ⚠
2	23,90	M-16	90	20,80	21	16,15	003 99 17 03 02 ⚠
2	23,90	M-16	125	20,80	21	16,15	003 99 17 03 50 ⚠

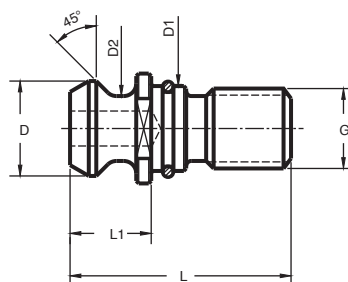
⚠ Product outside of our present production program. Price subject to availability.

* These pull studs are not according to ISO 7388/2 Form B.

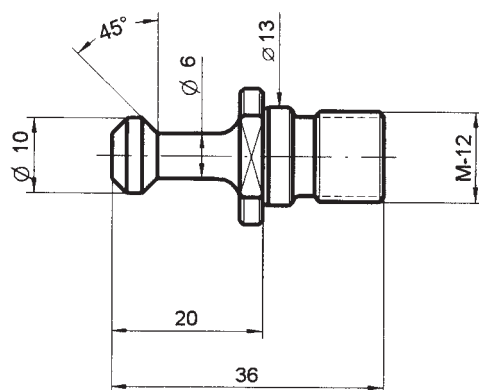
003 99 27

ISO 7388/2 PULL STUDS ($\alpha 45^\circ$)

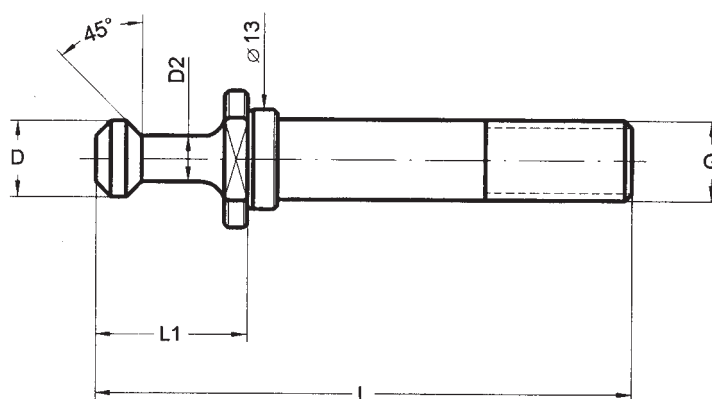
Without through coolant channel



D	G	L	L ₁	D ₁	D ₂	COD.	
18,8	M-16	44,5	16,25	17	12,80	003 99 27 02 00	305 04 01 41 50
29	M-24	65,5	25,4	25	19,45	003 99 27 04 00	305 04 02 02 50

003 99 30**SHORT CHIRON ISO 30 PULL STUDS ($\alpha 45^\circ$)**

D	G	L	L ₁	D ₁	D ₂	COD.
10	M-12	36	20	13	6	003 99 30 01 00

003 99 30**LONG CHIRON ISO 30 PULL STUDS FOR REDUCERS ADAPTADERS ($\alpha 45^\circ$)**

D	G	L	L ₁	D ₁	D ₂	COD.
10	M-6	74	20	13	6	003 99 30 01 20
10	M-10	84	20	13	6	003 99 30 01 30
10	M-12	89	20	13	6	003 99 30 01 40

Product outside of our present production program. Price subject to availability.