FÖRSVARETS MATERIELVERK
Huvudavdelningen för flygmateriel

SFI
Datum
79-07-02

M7780-400173

K. Krigsarkivets
Bibliotek
Sc. C V & ov
(4)
1979

2016-01-21 ju
HEMLIG
jämlikt 4 § lagen 1937:249
78-10-20
FÖRSVARETS
MATERIELVERK

Antal blad: se innehållsförteckning
under varje flik

# FPL AJ37

M5800-370011

# SPECIELL FÖRARINSTRUKTION KOMPLEMENT

# Del 3

## Innehåll, del 1

Ändringsförteckning
Inledning
Innehållsförteckning
Bildförteckning
I Beskrivning och handhavande

## Innehåll, del 2 (HEMLIG)

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VI Ändringar ..... 6

## Innehåll, komplement (del 3, HEMLIG)

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III Stigning ..... 3
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KRIGSARKIVETS
BIBLIOTEK

Exemplar nr: 076

Krigsarkivet
19 79
N. 42016

Förrådsbeteckning: M7780-400173
Förrådsbenämning: SFI FPL AJ37, D3

Fastställd enligt TOMT 37-00-920B
Utgåva: Juli 1979

Distribution:
Försvarets Bok- och Blankettförråd

Saab-Scania, Linköping, 79-0413

## Princip för ändringsmarkering

På ändrad sida (obs ej blad) har år, månad och dag för ändringen angetts. Dessutom är sakändringar markerade (även avlägsnade textavsnitt) med en våglinje i vänstra marginalen.

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Saab-Scania, Linköping. 79-0413

# ÄNDRINGSFÖRTECKNING

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**Innehåll** Sida

Allmänt om komplementet 3
Lastalternativtabell..... 6-6

# INLEDNING

# ALLMÄNT OM KOMPLEMENTET

Prestandauppgifter för taktiskt bruk har sammanställts i detta komplement till SFI AJ37. Varje kapitel gäller för en prestandatyp enligt flikbladen.

Alla prestandauppgifter är — såvitt inte annat anges — omräknade att gälla för standardatmosfär, d v s för temperaturen +15°C och lufttrycket 1013 mb vid havsytans nivå samt för en temperaturminskning med ökande höjd enligt nedanstående tabell.

| Höjd m | Temp °C | Höjd m | Temp °C |
|---|---|---|---|
| 0 | +15,0 | 6000 | −24,0 |
| 1000 | + 8,5 | 7000 | −30,0 |
| 2000 | + 2,0 | 8000 | −37,0 |
| 3000 | − 4,5 | 9000 | −43,5 |
| 4000 | −11,0 | 10000 | −50,0 |
| 5000 | −17,5 | 11000 och högre | −56,5 |

De prestandavärden som gäller vid ovanstående temperaturer betecknas med ISA och de som gäller vid 10° högre och 15°, 30° eller 45° lägre temperatur betecknas med ISA +10 respektive ISA −15, ISA −30 och ISA −45.

## LASTALTERNATIV

Då antalet tänkbara lastalternativ är mycket stort har endast rent fpl plus 4 st från motståndssynpunkt representativa standardlastalternativ utvalts. Dessa benämns Lastalternativgrupp 1 — 4. Övriga lastalternativ har sedan klassats till dessa och finns angivna i tabellen på sid 6.

De lastalternativ som utvalts är följande

| Lastalt | Grupp |
|---|---|
| Rent fpl | Rent fpl |
| 2 RB 24 + KA/KB + XT | 1 |
| 1 RB 04 + 1 RB 24 + KA + XT | 2 |
| RA + KB + XT | 3 |
| 16 sprängbomber + XT | 4 |

Vid acceleration på 11 km har lastalternativet 2 AK + 1 RB 24 + 1 RB 05 + XT valts om representativt för jaktfallet.

## VIKT

De vikter som använts vid beräkningen erhålles ur diagrambeskrivningen för respektive kapitel samt tabellen sid 6.

Med begreppet Startvikt avses fulltankat fpl.
Med begreppet Flygvikt som ibland anges i diagrambeskrivningen avses 70 % kvarvarande bränsle för fpl utan XT och 100 % för fpl med XT.
För hela komplementet gäller att 100 % bränsle = 4200 kg.

## MOTSTÅNDSINDEX (DELTAD)

Motståndsindex är ett mått på fpl:s tilläggsmotstånd p g a yttre last och har införts för att noggrannare kunna beräkna kilometerförbrukning. Motståndsindex som funktion av fart finns angivet i tabell sid 6. Se vidare under Kap 5.

HEMLIG
Se titelbladet
2016-01-21



## START OCH LANDNING

Kapitlet Start och landning som tidigare fanns i komplementet har utgått då diagrammen finns i SFI AJ37.

Använda förkortningar för yttre last

| | |
|---|---|
| XT | EXTRATANK |
| KA | Kapsel KA |
| KB | Kapsel KB |
| 04 | RB 04E |
| 05 | RB 05A |
| 24 | RB 24 |
| 75 | RB 75 |
| RA | Arakkapsel m/70 |
| SB | 4 st Sprängbomber m/71 med lavett |
| LB | 4 st Lysbomber m/70 med lavett |
| AK | 30 mm Akankapsel |

# LASTALTERNATIVTABELL

| YTTRE UTRUSTNING I BALK/BALKLÄGE | | | | | LAST-ALT GRUPP | START VIKT KG | FLYGVIKT VID KVARVARANDE BRÄNSLE (%) | | | MOTSTÅNDSINDEX (DELTAD) VID MACHTAL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V7 | S7 | C7 | S7 | V7 | | | 100 | 70 | 40 | <0.6 | 0.7 | 0.8 | 0.9 |
| | | | | | – | 14772 | 14772 | 13512 | 12252 | 0 | 0 | 0 | 0 |
| | | XT | | | – | 15893 | 14893 | 13633 | 12373 | 5 | 5 | 5 | 5 |
| KB | 24 | XT | 24 | KA | 1 | 16700 | 15700 | 14440 | 13180 | 13 | 13 | 13 | 14 |
| 04 | | XT | 24 | 04 | 2 | 17346 | 16346 | 15086 | 13826 | 23 | 23 | 26 | 38 |
| 04 | | XT | 24 | KA | 2 | 17022 | 16022 | 14762 | 13502 | 17 | 17 | 19 | 25 |
| KB | | XT | 24 | 04 | 2 | 16941 | 15941 | 14681 | 13421 | 17 | 17 | 18 | 25 |
| KB | | XT | 24 | KA | 1 | 16617 | 15617 | 14357 | 13097 | 11 | 11 | 11 | 12 |
| | 05 | XT | 24 | | 1 | 16365 | 15365 | 14105 | 12845 | 10 | 10 | 10 | 11 |
| KB | 05 | XT | 24 | | 1 | 16621 | 15621 | 14361 | 13101 | 12 | 12 | 12 | 13 |
| KB | 05 | XT | 24 | KA | 1 | 16958 | 15958 | 14698 | 13438 | 14 | 14 | 14 | 15 |
| | 75 | XT | 24 | 75 | 1 | 16542 | 15542 | 14282 | 13022 | 14 | 14 | 14 | 17 |
| KB | 75 | XT | 24 | 75 | 1 | 16798 | 15798 | 14538 | 13278 | 16 | 16 | 16 | 19 |
| KB | 75 | XT | 75 | KA | 2 | 17028 | 16028 | 14768 | 13508 | 17 | 17 | 17 | 20 |
| RA | RA | XT | RA | RA | 3 | 17369 | 16369 | 15109 | 13849 | 27 | 31 | 39 | 50 |
| KB | RA | XT | RA | RA | 3 | 17262 | 16262 | 15002 | 13742 | 25 | 28 | 36 | 44 |
| RA | RA | XT | 24 | RA | 3 | 17113 | 16113 | 14853 | 13593 | 25 | 28 | 36 | 44 |
| KB | RA | XT | RA | KA | 3 | 17236 | 16236 | 14976 | 13716 | 23 | 26 | 31 | 38 |
| KB | LB | XT | LB | KA | 2 | 17400 | 16400 | 15140 | 13880 | 24 | 25 | 26 | 30 |
| SB | SB | XT | SB | SB | 4 | 18353 | 17353 | 16093 | 14833 | 31 | 31 | 34 | 43 |
| KB | SB | XT | SB | SB | 4 | 18000 | 17000 | 15740 | 14480 | 27 | 28 | 30 | 36 |
| KB | SB | XT | SB | KA | 2 | 17728 | 16728 | 15468 | 14208 | 24 | 25 | 26 | 30 |
| SB | SB | XT | 24 | SB | 4 | 17851 | 16851 | 15591 | 14331 | 27 | 28 | 30 | 36 |
| AK | 24 | XT | 24 | AK | 1 | 16859 | 15859 | 14599 | 13339 | 15 | 15 | 15 | 19 |
| AK | 05 | XT | 24 | AK | 1 | 17093 | 16093 | 14833 | 13573 | 16 | 16 | 16 | 20 |
| AK | 75 | XT | 24 | AK | 1 | 17011 | 16011 | 14751 | 13491 | 16 | 16 | 16 | 21 |
| | LB | XT | 24 | | 1 | 16469 | 15469 | 14209 | 12949 | 12 | 12 | 13 | 16 |
| KB | LB | XT | 24 | | 1 | 16725 | 15725 | 14465 | 13205 | 14 | 14 | 15 | 18 |
| KB | LB | XT | 24 | KA | 2 | 17062 | 16062 | 14802 | 13542 | 17 | 17 | 17 | 20 |

**Innehåll** Sida

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Acc från dist ek fart
H = 11 km ISA ..... 39-39

# ACCELERATION

# DIAGRAMBESKRIVNING

## Start och acc till M = 0,55

Tid bränsle och sträcka för start och acceleration till distansekonomisk fart (M = 0,55) på höjden 0 km.
Atmosfär ISA, ISA +10, ISA −15, ISA −30 och ISA −45
Pådrag: Max zon 3, max zon 2 och max släckt

## Acceleration Höjd 0 km

Acceleration från dist ek fart.
Lastalt: Rent fpl + Grupp 1 — 4.
Atmosfär ISA, ISA +10, ISA −15, ISA −30 och ISA −45
Pådrag: Max zon 3, max zon 2, max zon 1 och max släckt
Vikt: Startvikt −275 kg (för start och acc)

## Acceleration Höjd 6 km ISA

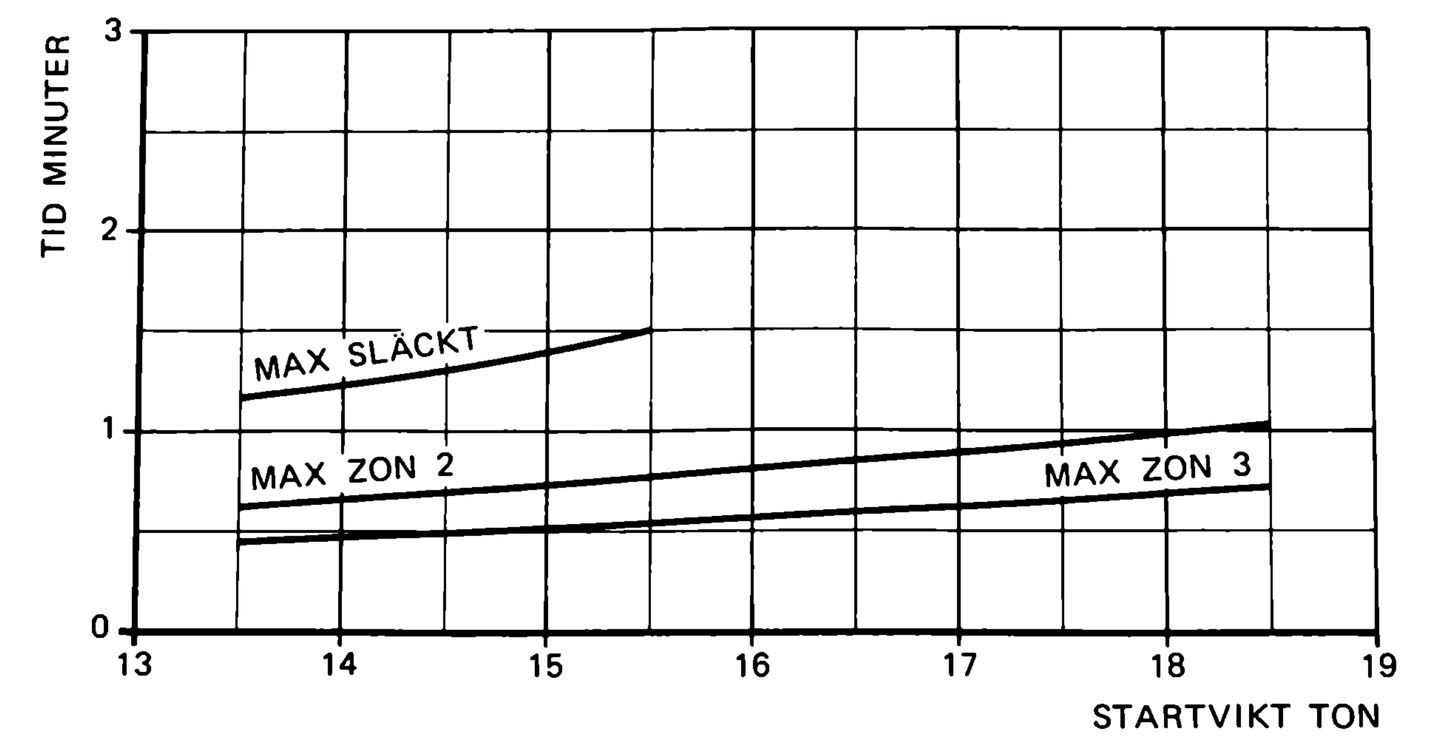
Acceleration från dist ek fart. ($V_i$ = 675/H).
Lastalt: Rent fpl + Grupp 1 — 4
Pådrag: Max zon 3, max zon 2, max zon 1 och max släckt
Vikt: Startvikt −695 kg (275 kg för start och acc, 420 kg för stigning)

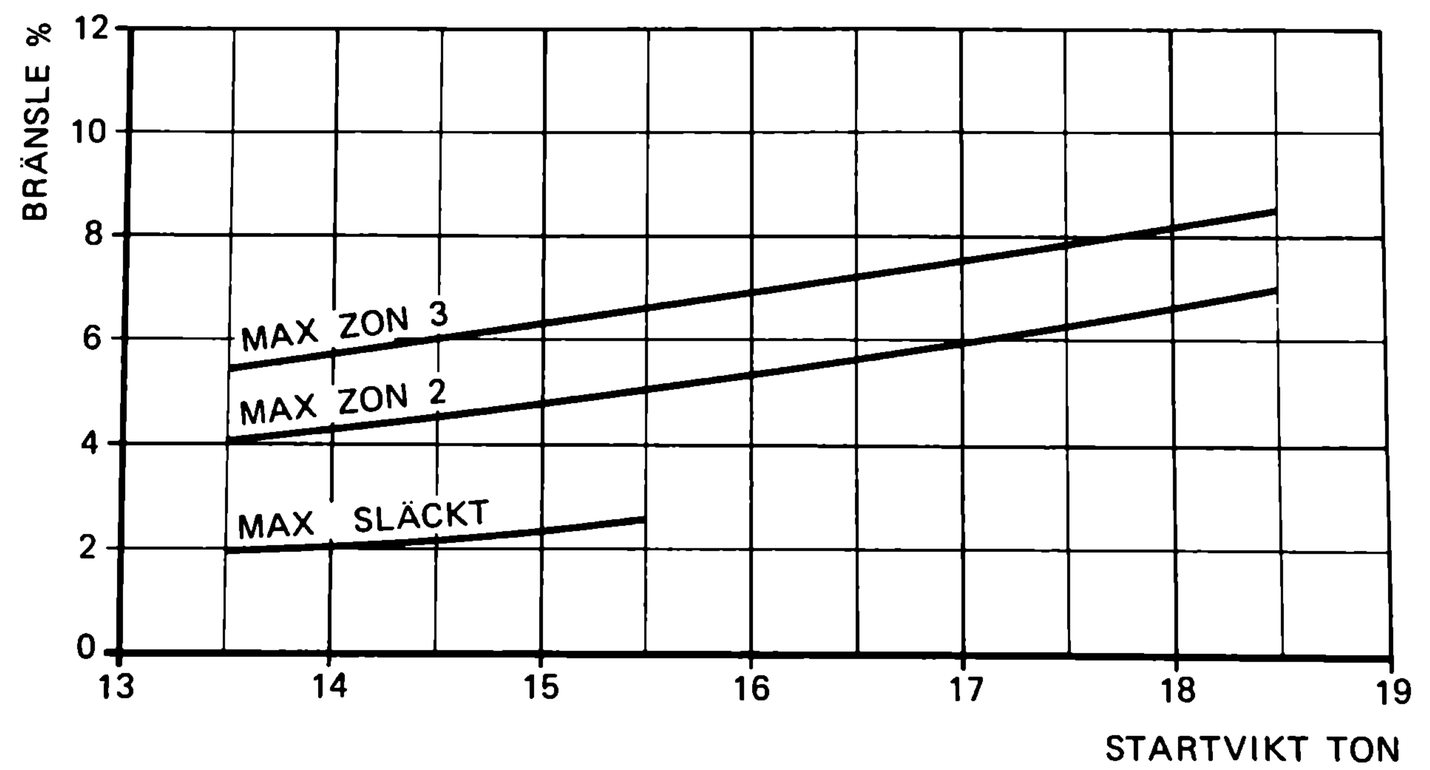
## Acceleration Höjd 11 km ISA

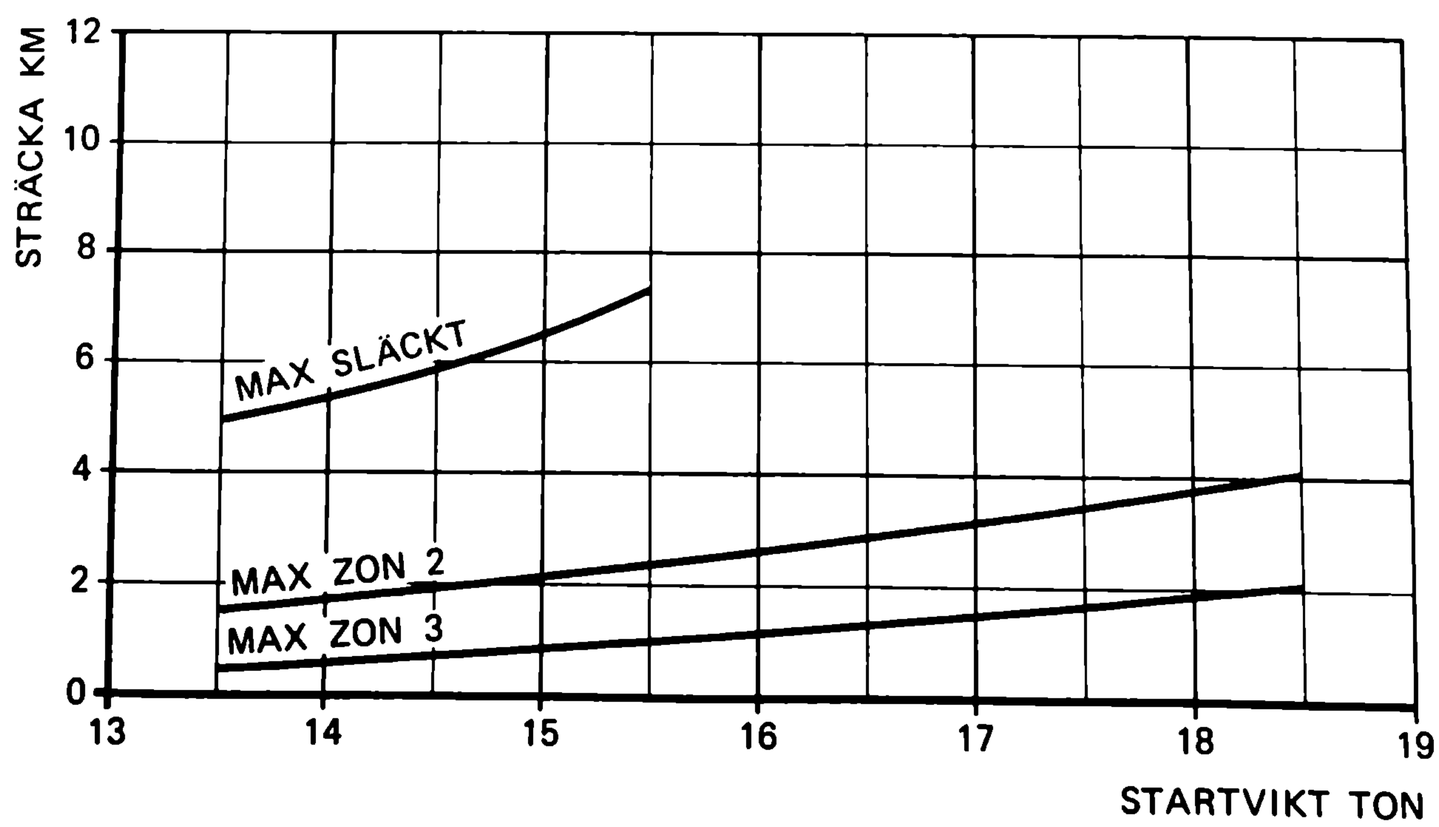
Acceleration från dist ek fart (M = 0,90)
Lastalt: 2 AK + 1 RB 24 + 1 RB 05 + XT
Pådrag: Max zon 3
Vikt: Startvikt −115 kg (275 kg för start +840 kg för stigning

# START + ACC TILL M = 0,55

ISA

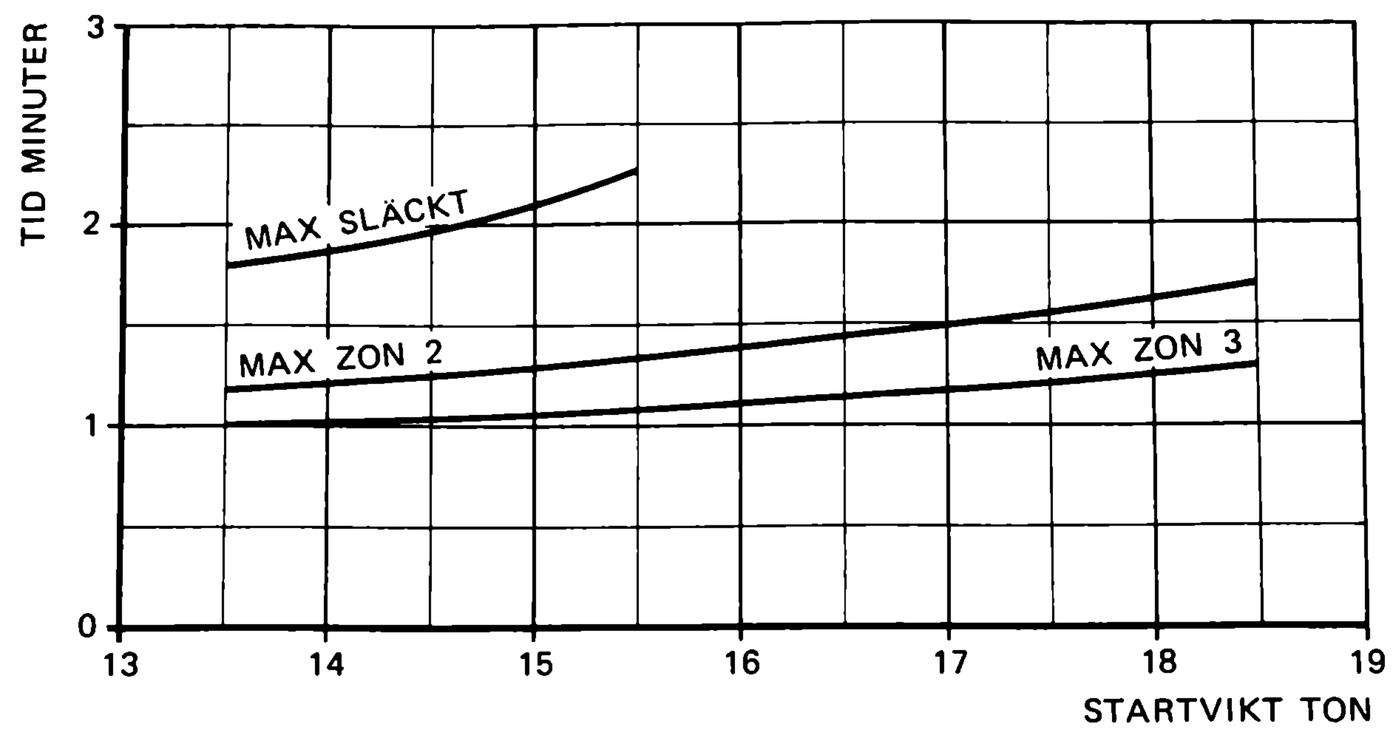


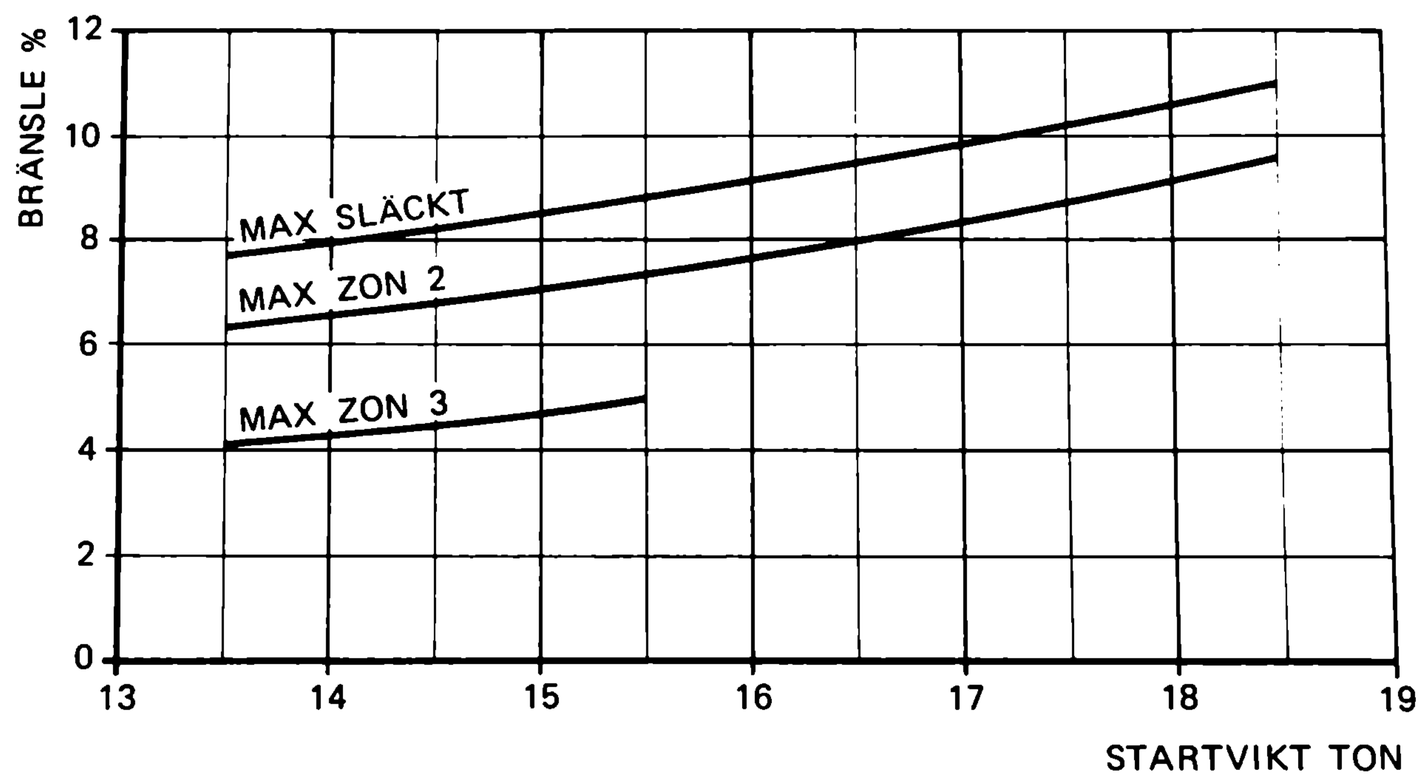



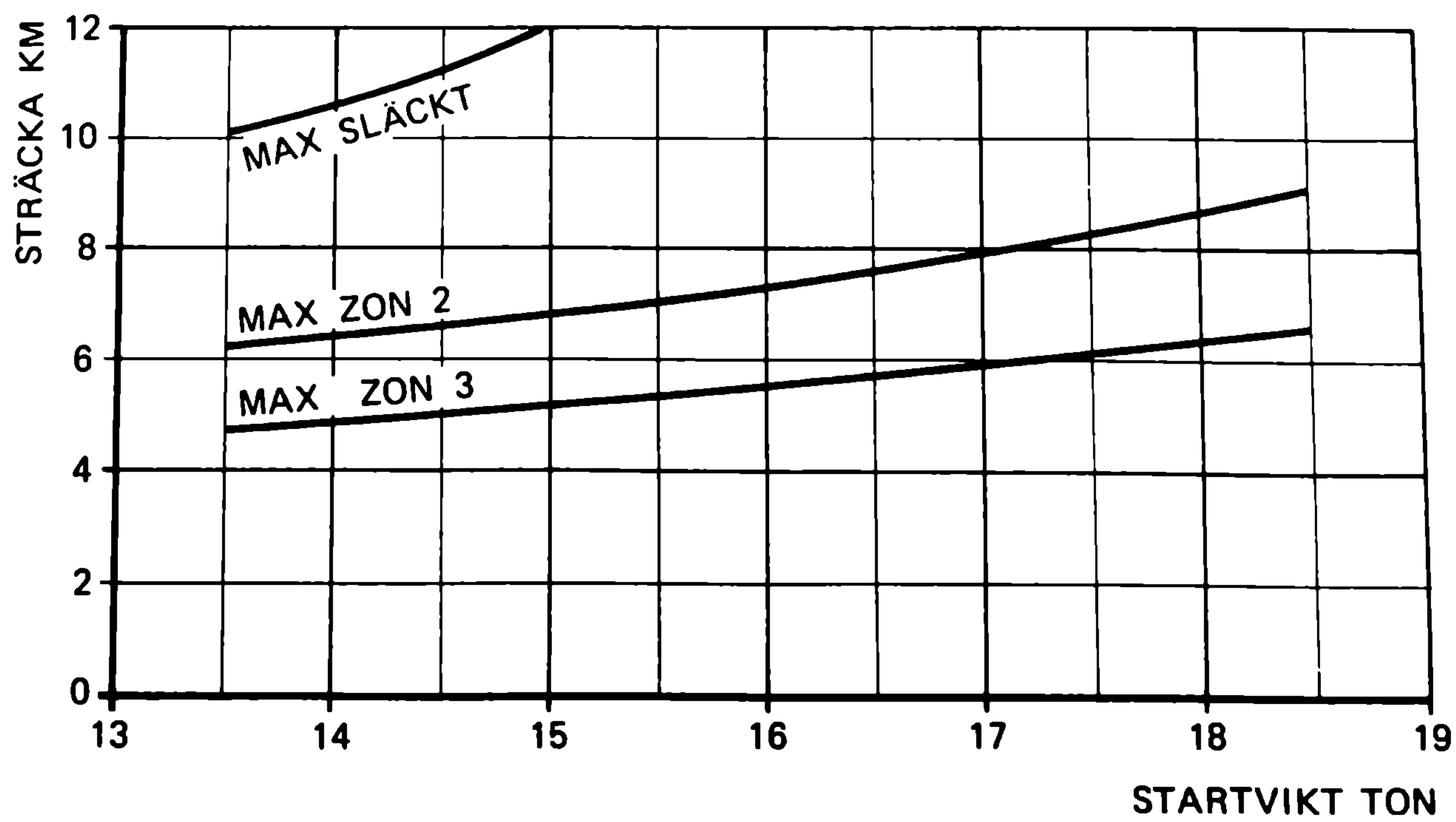



# START + ACC TILL M = 0,55

ISA +10

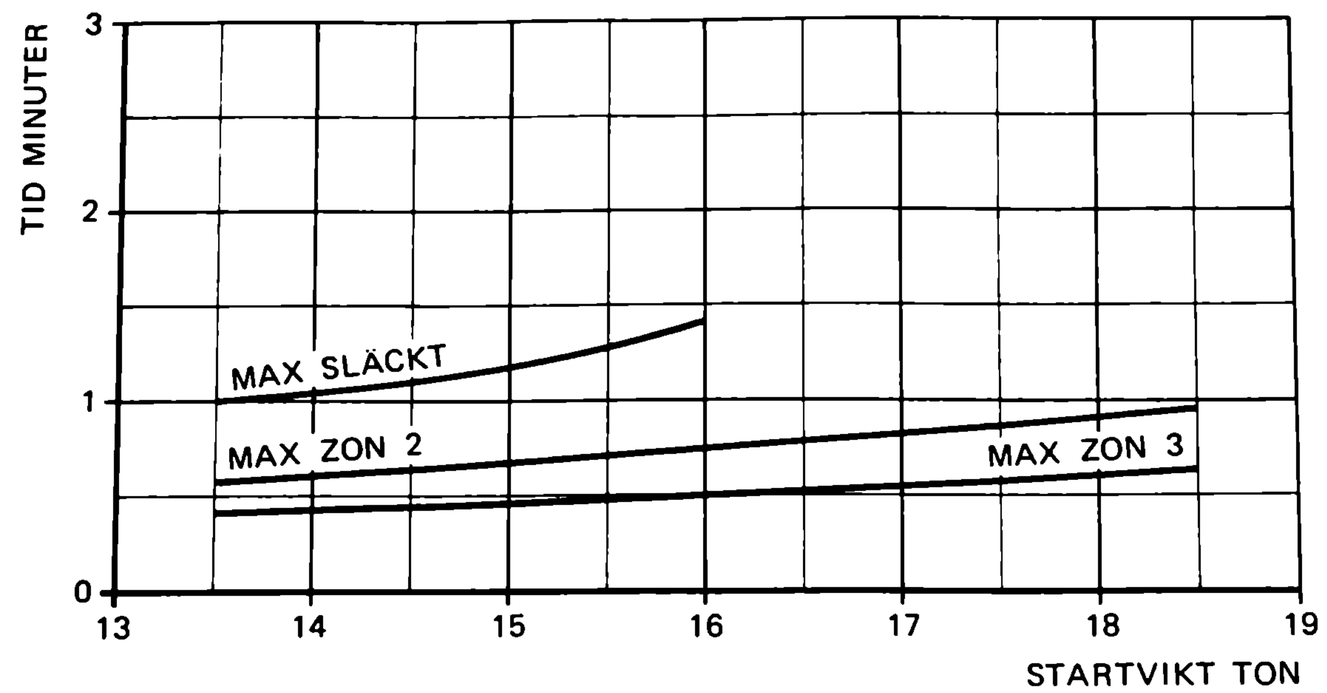


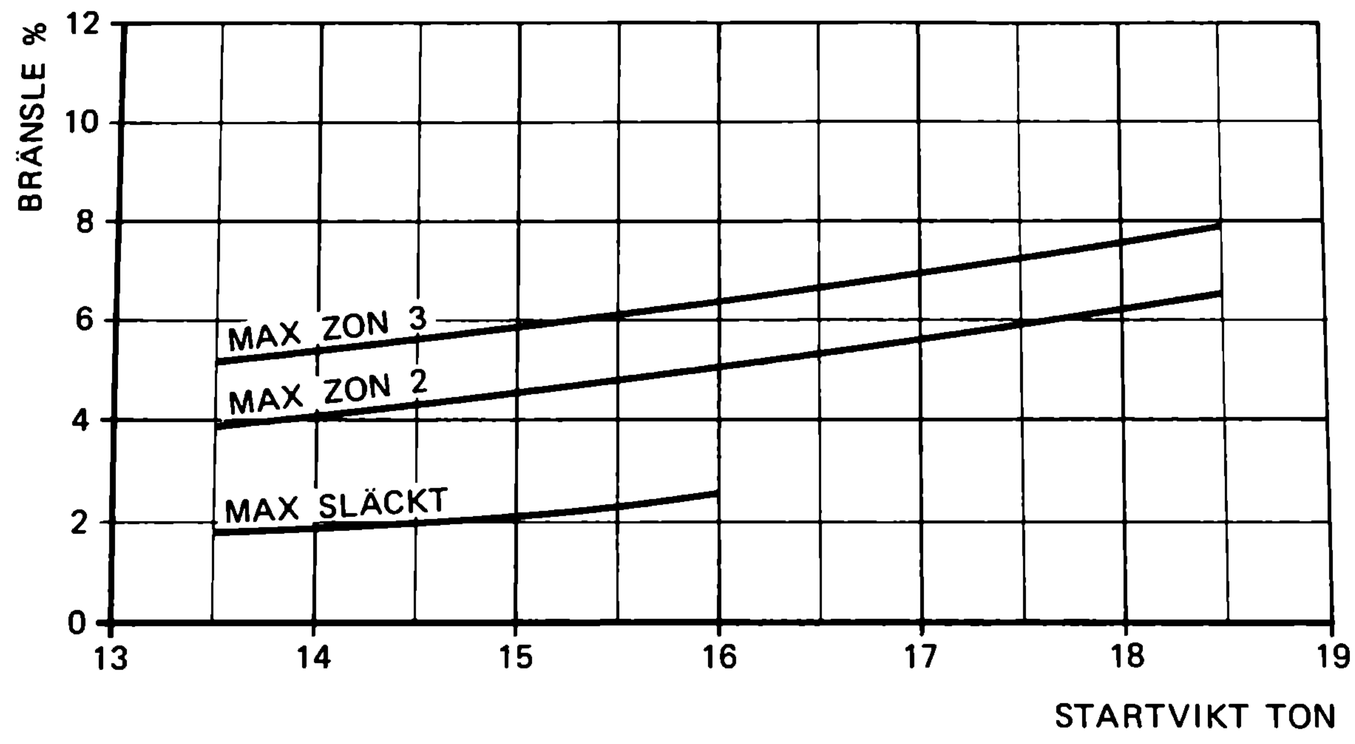



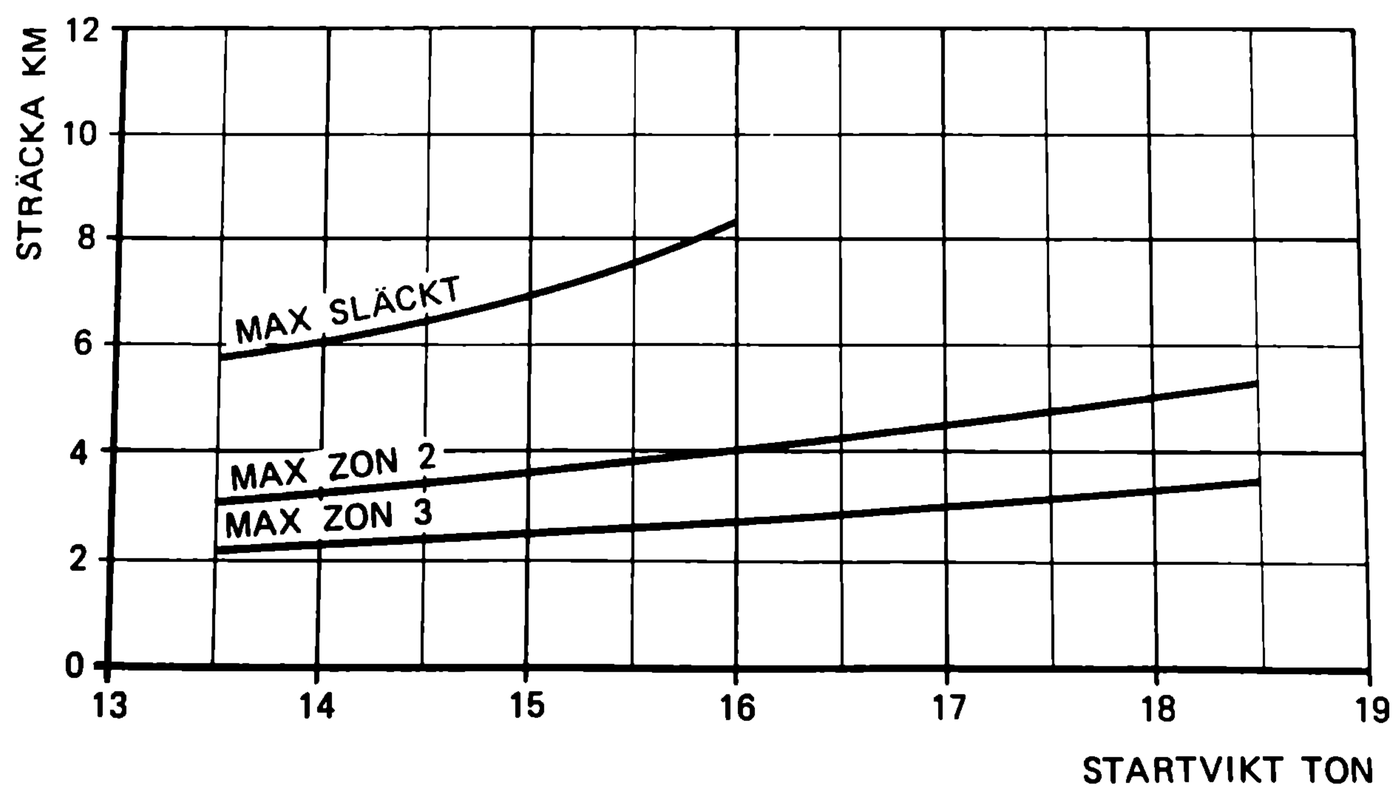



# START + ACC TILL M = 0,55

ISA –15

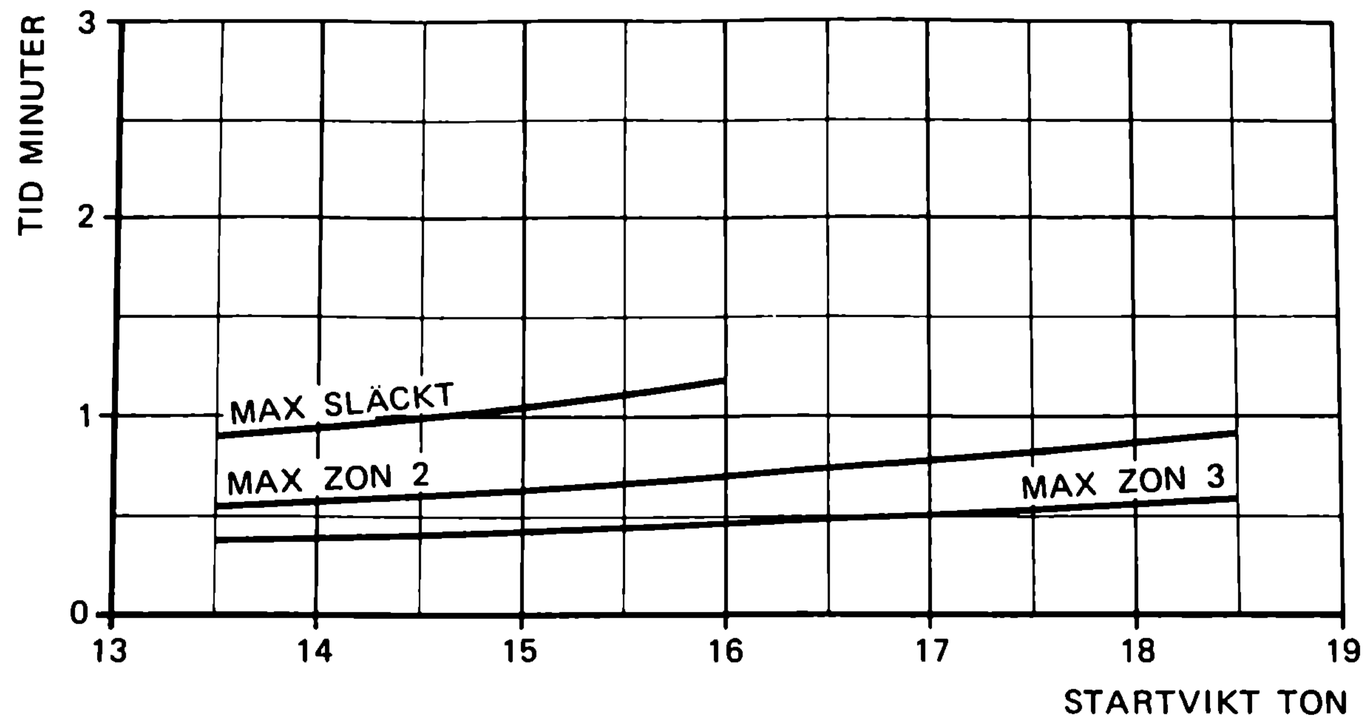


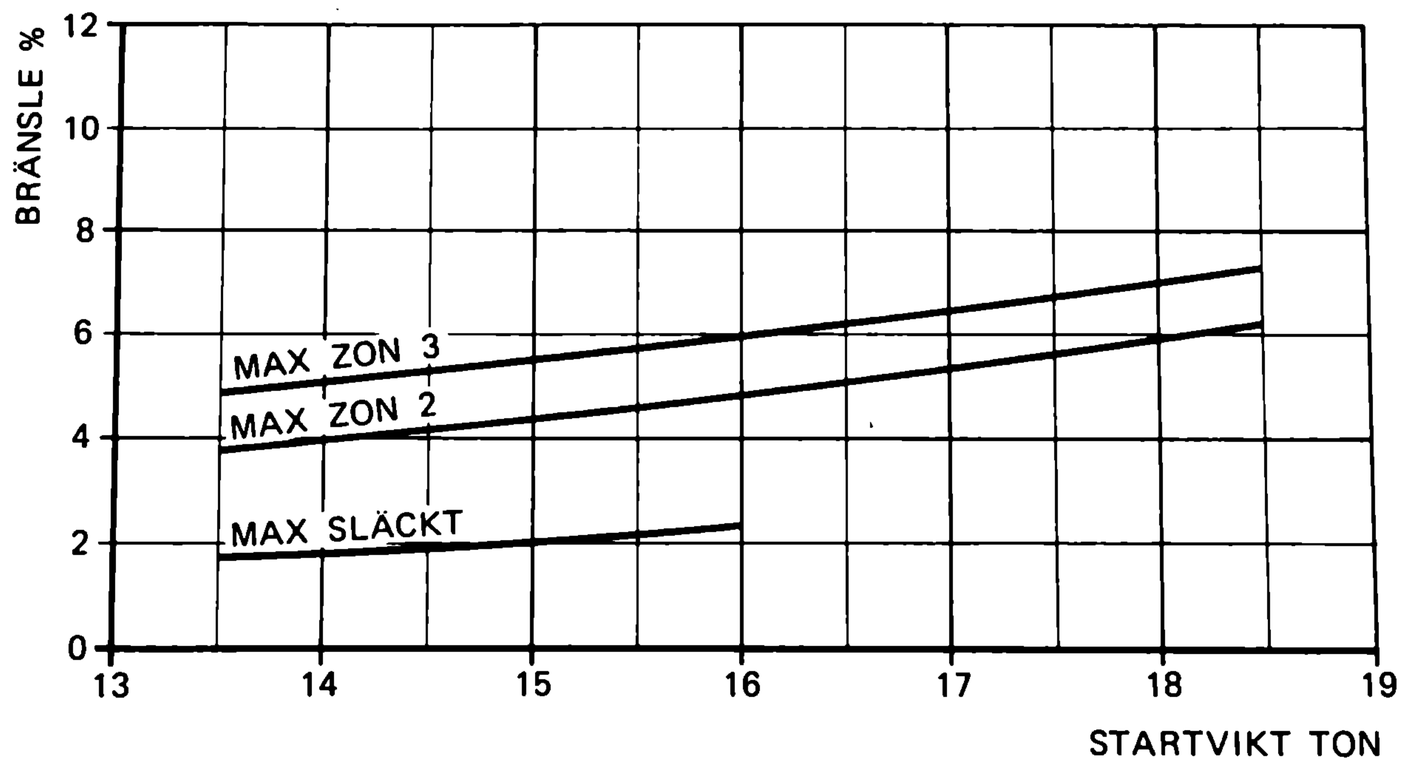



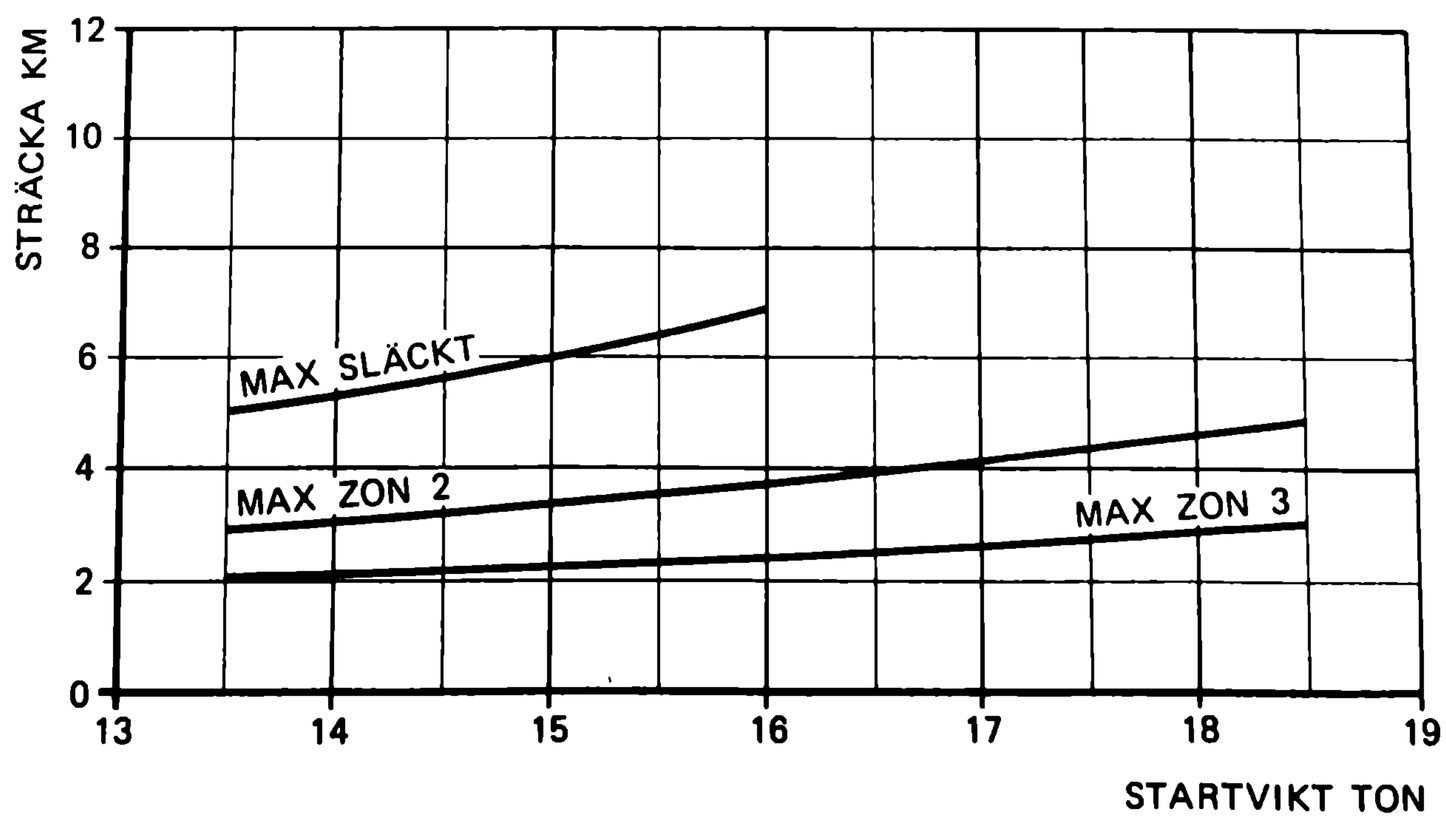



# START + ACC TILL M = 0,55

ISA –30

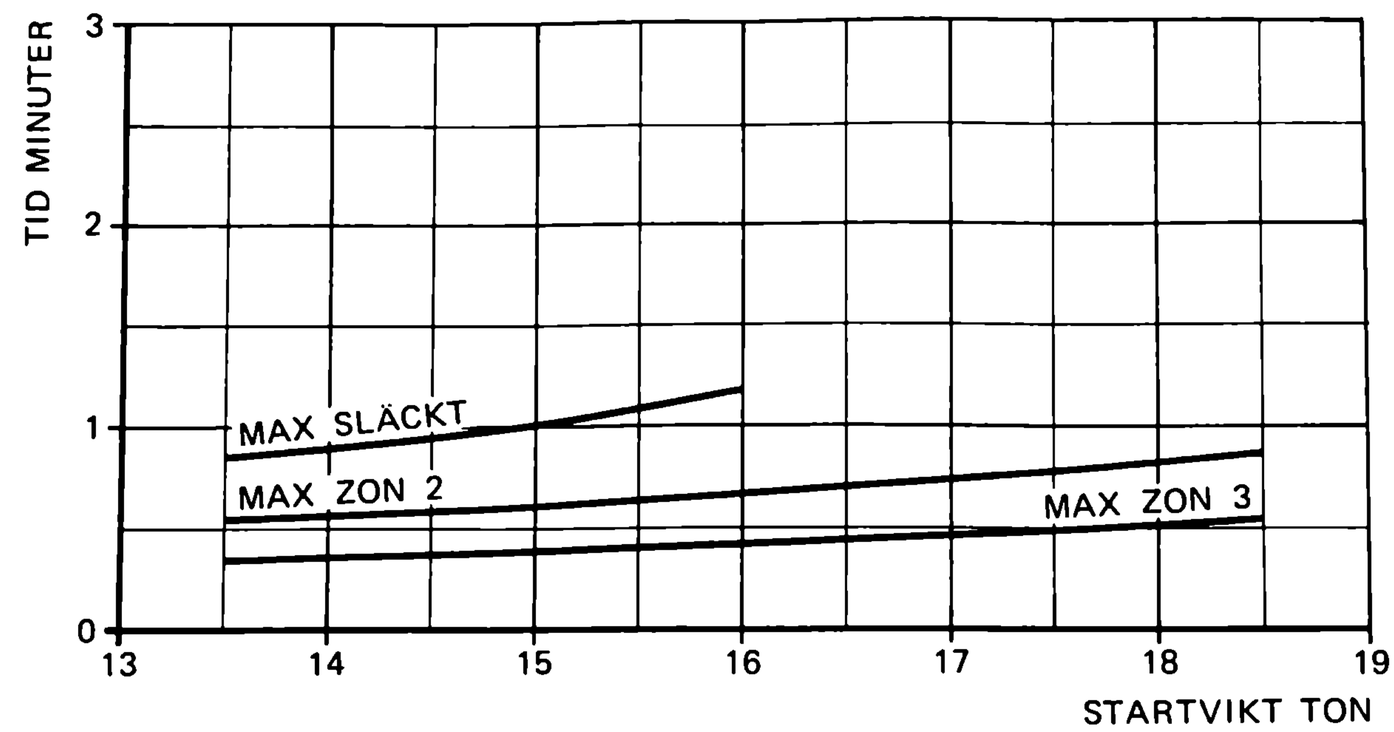


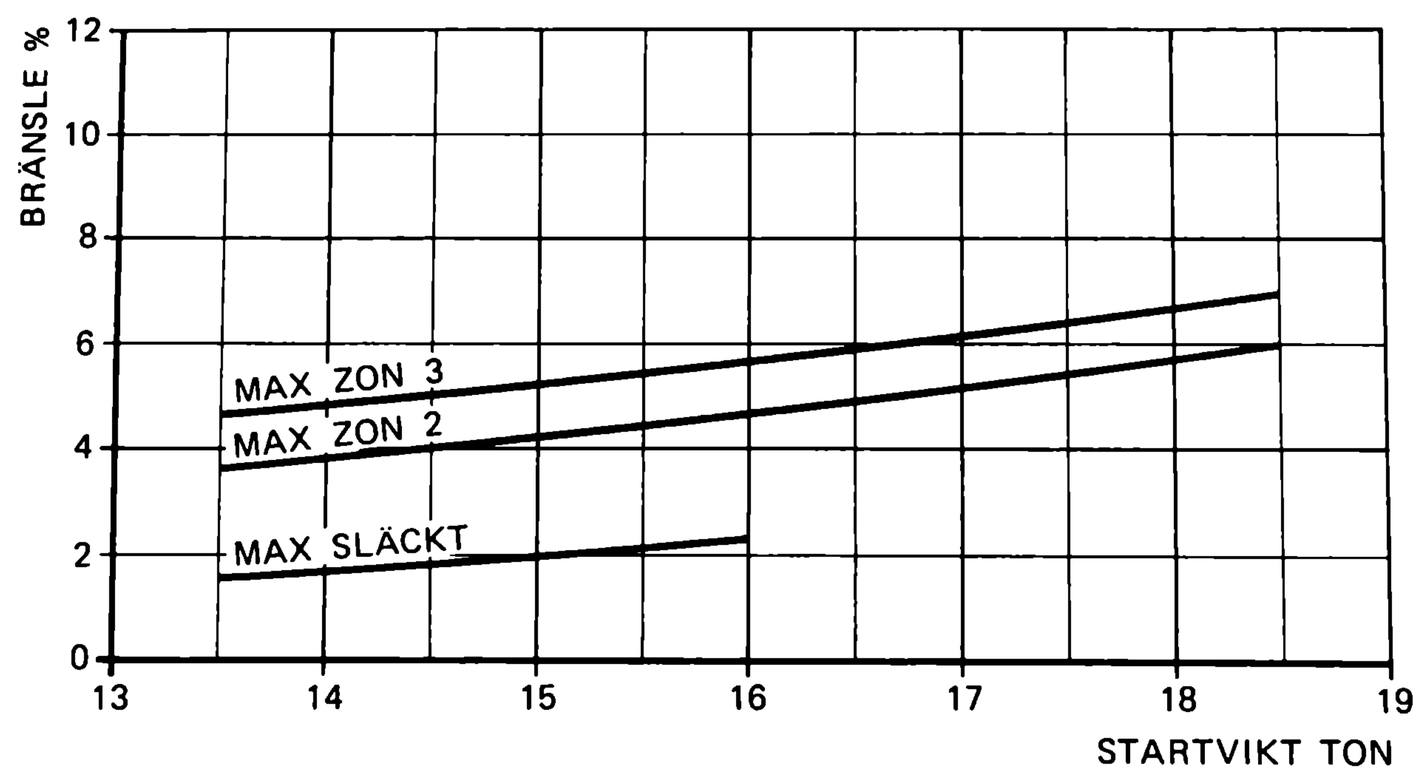



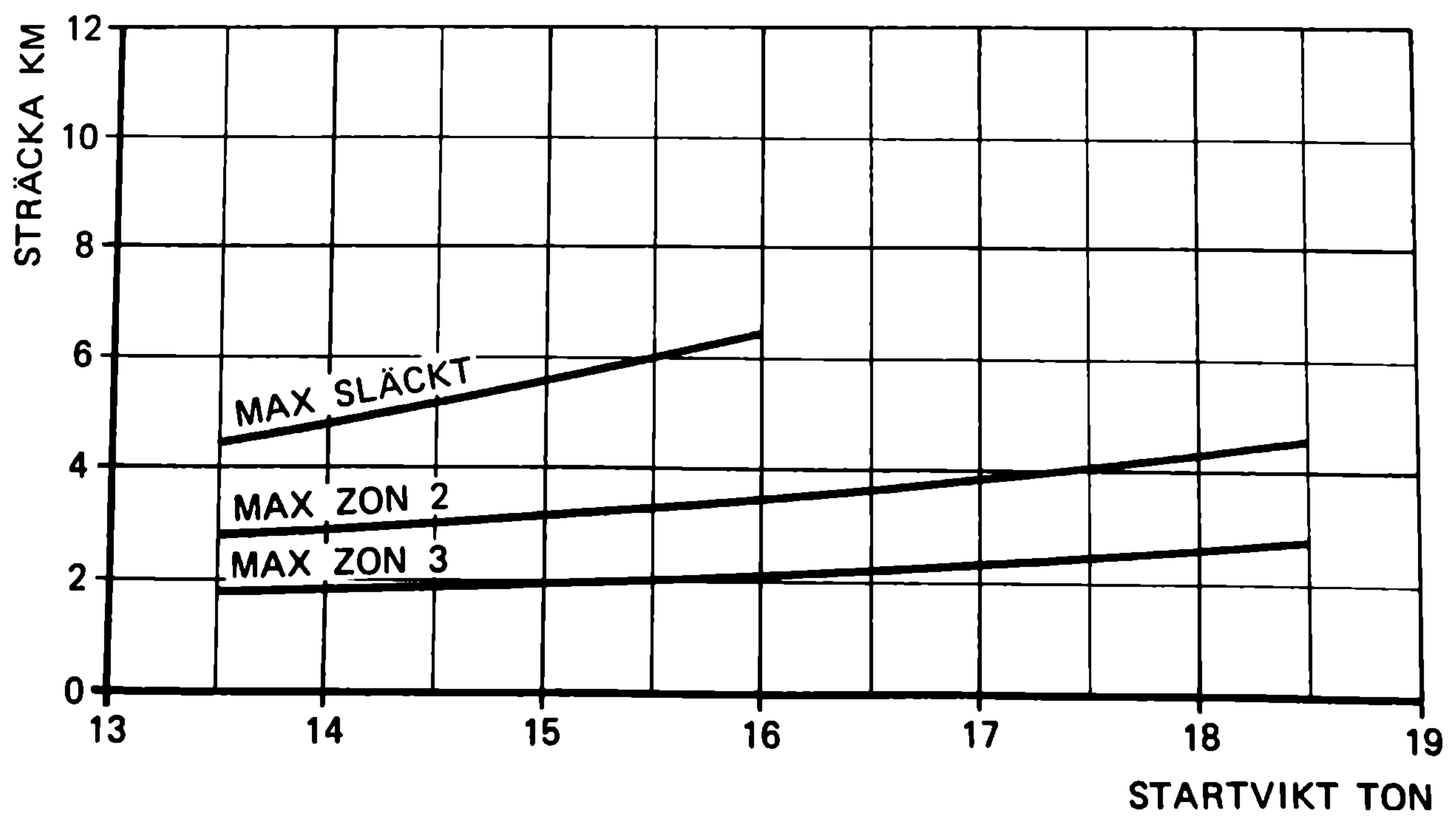



# START + ACC TILL M = 0,55

ISA –45

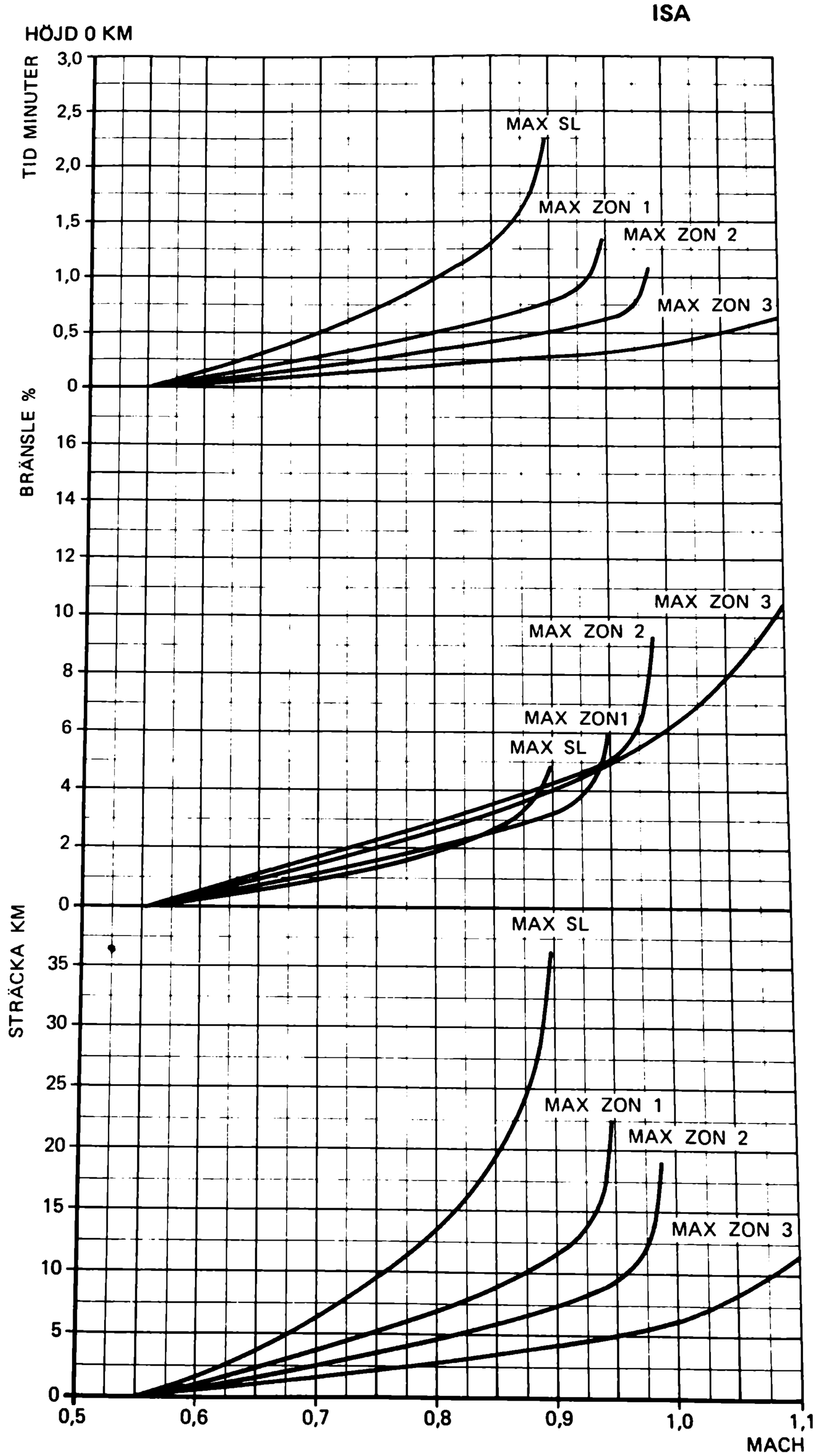


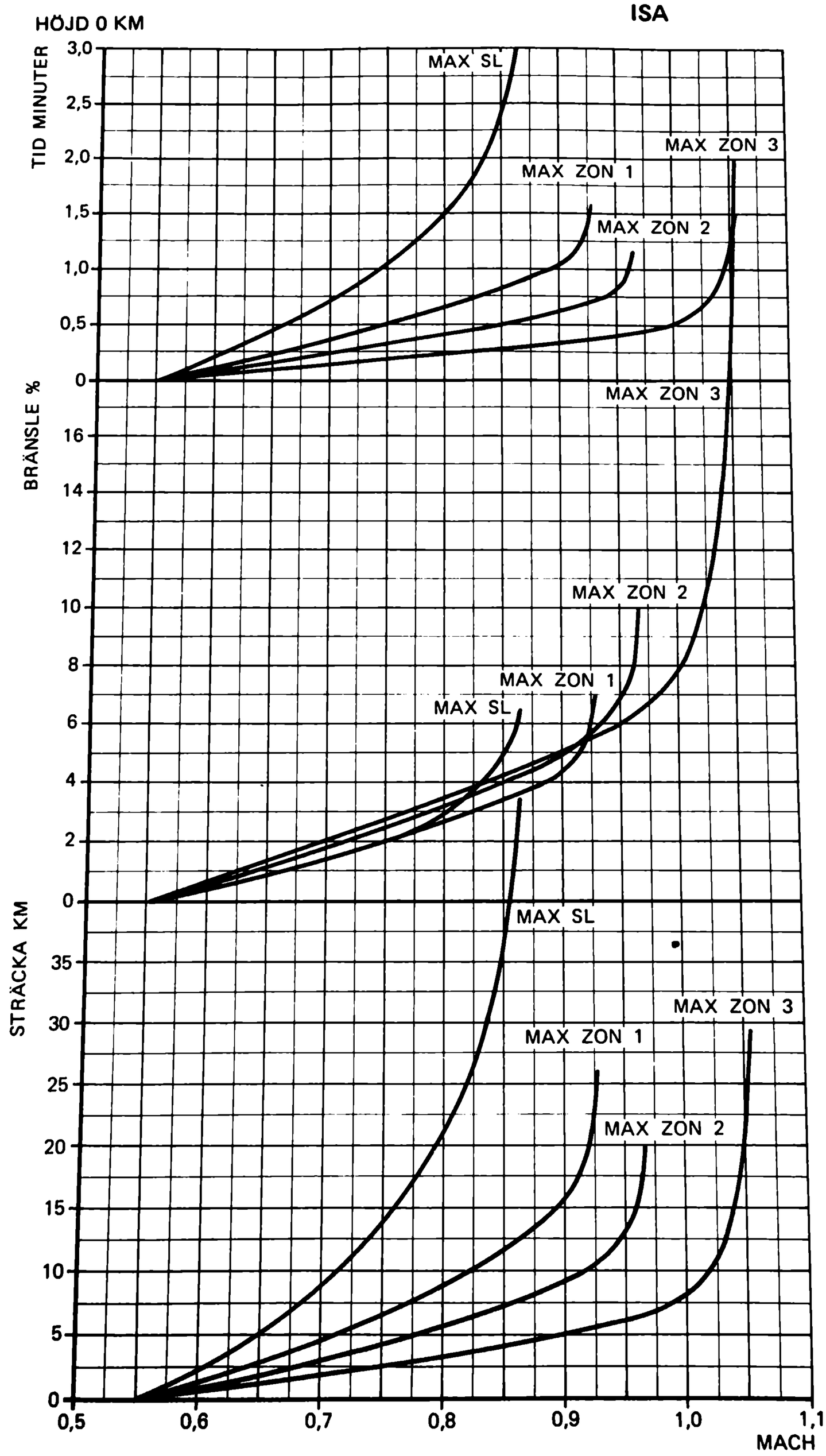
# ACCELERATION

RENT FPL
ISA



# ACCELERATION

**LASTALTERNATIV GRUPP 1**
**ISA**



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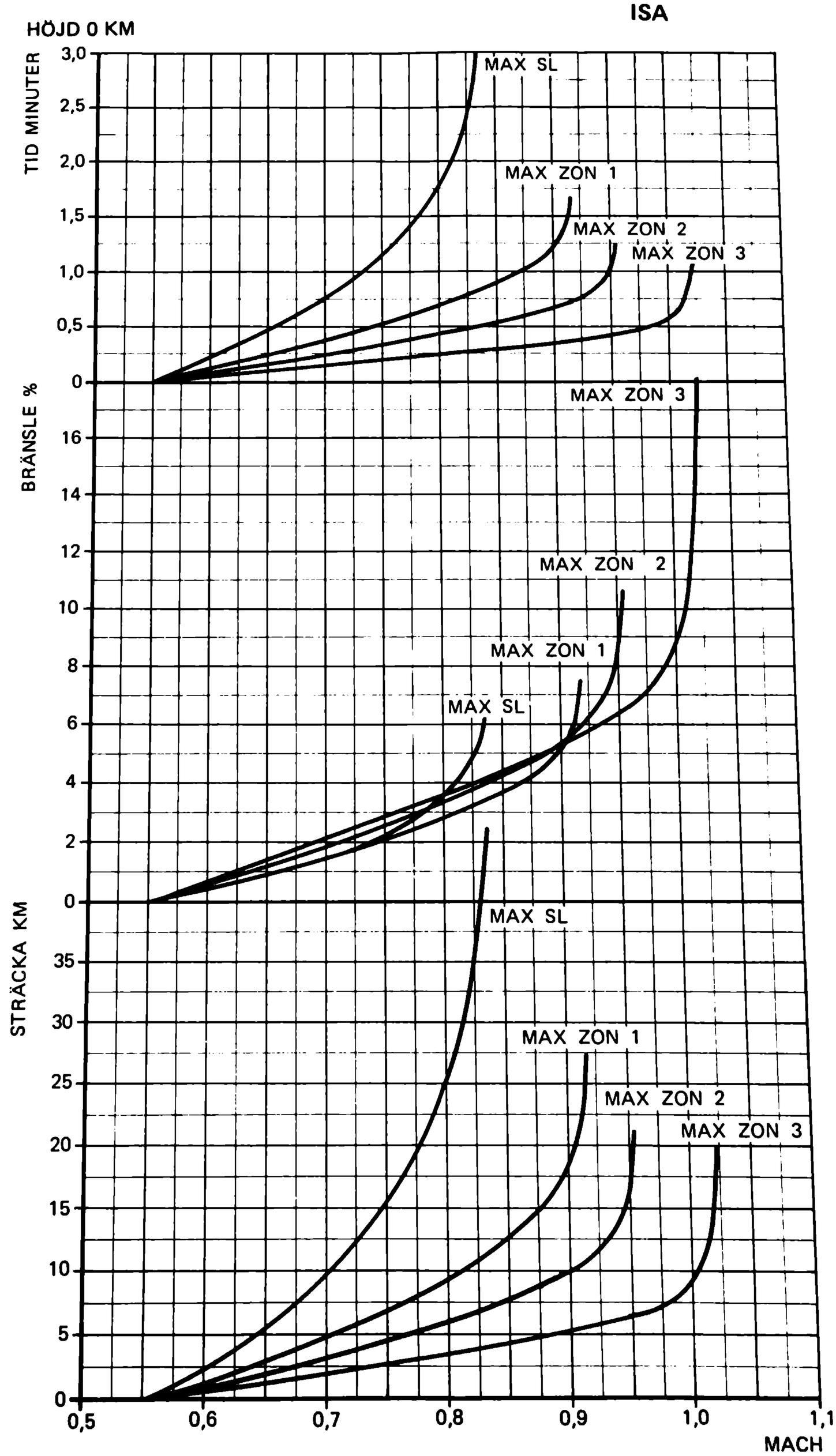

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**LASTALTERNATIV GRUPP 3**
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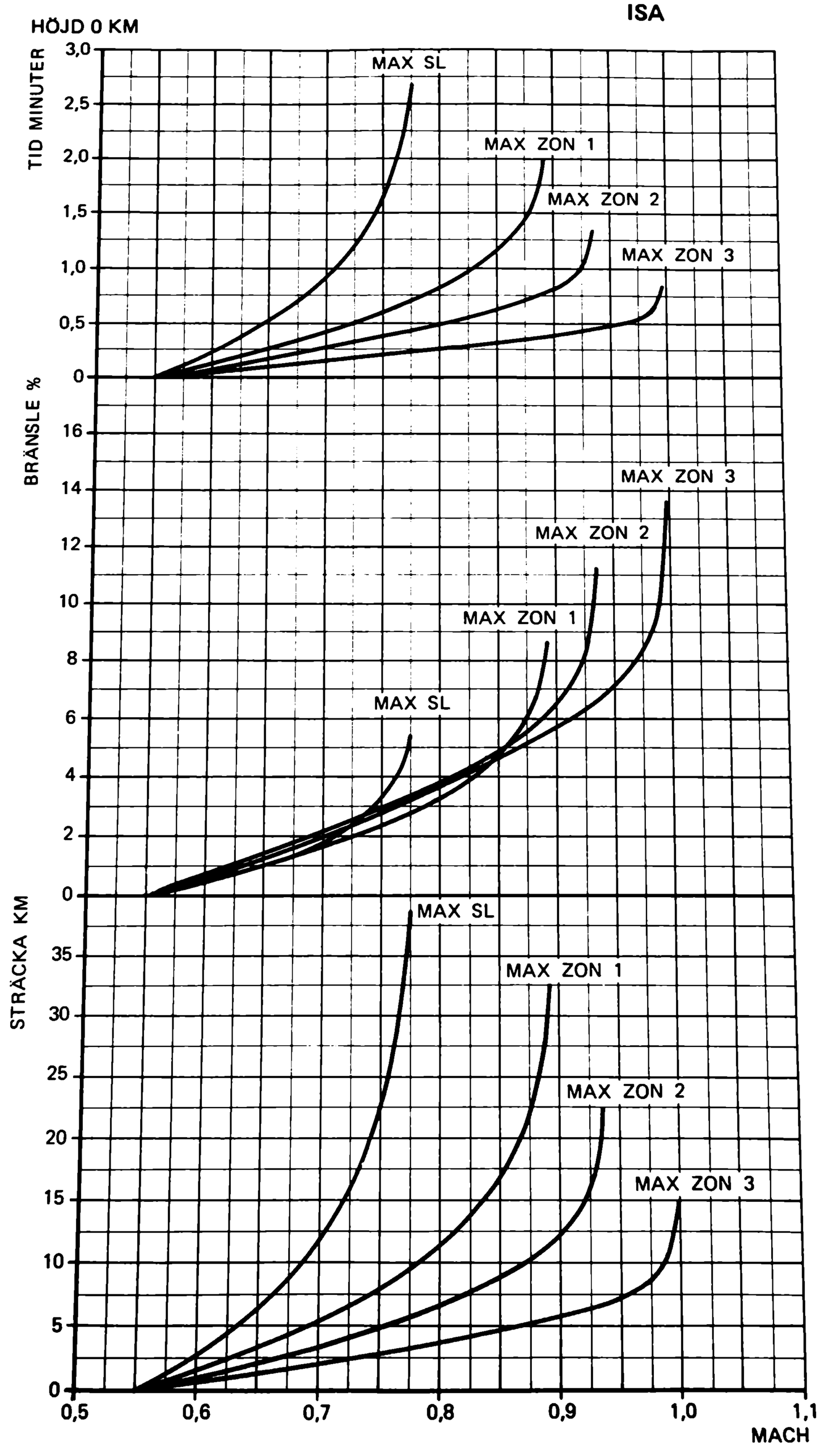

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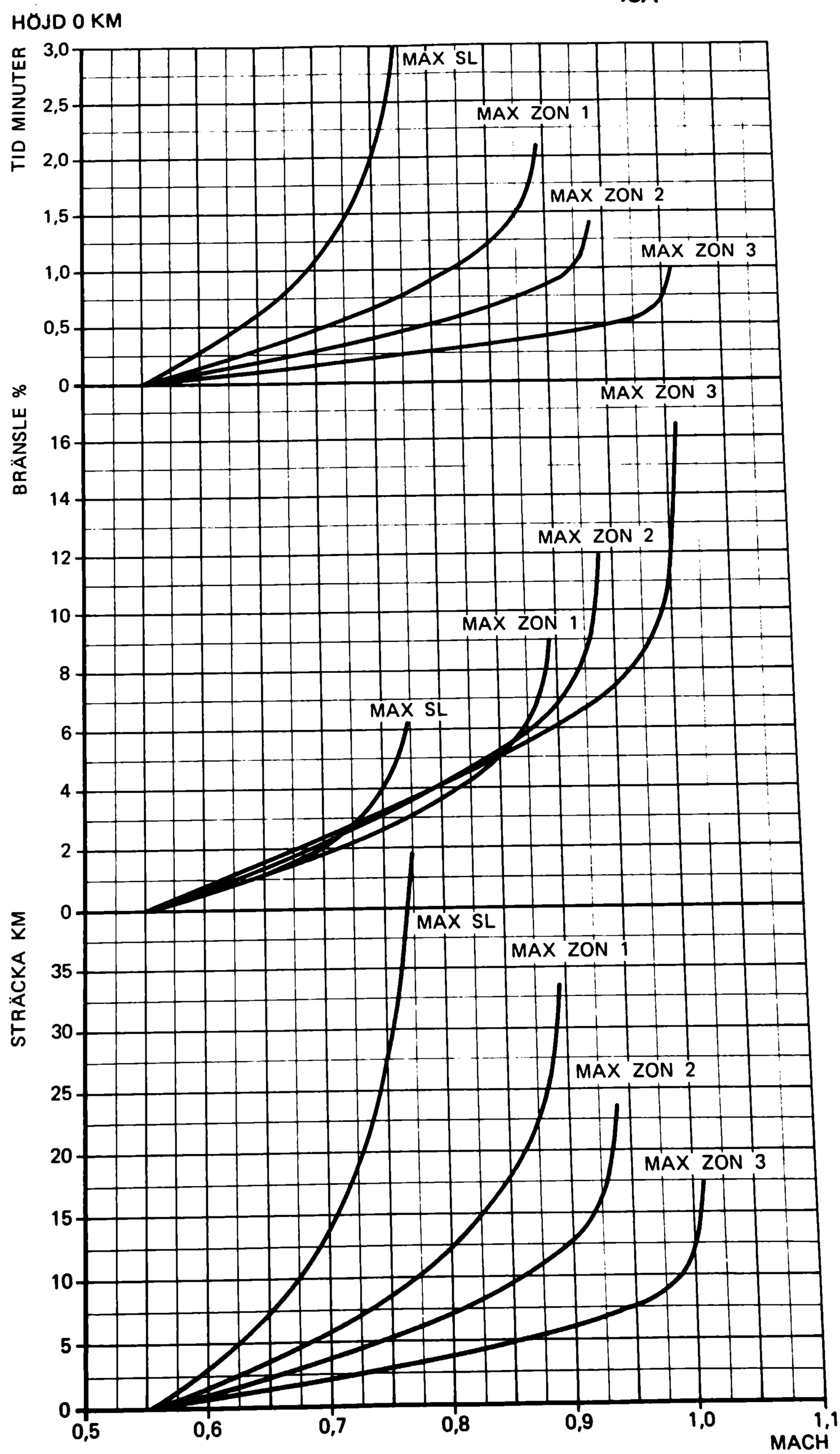

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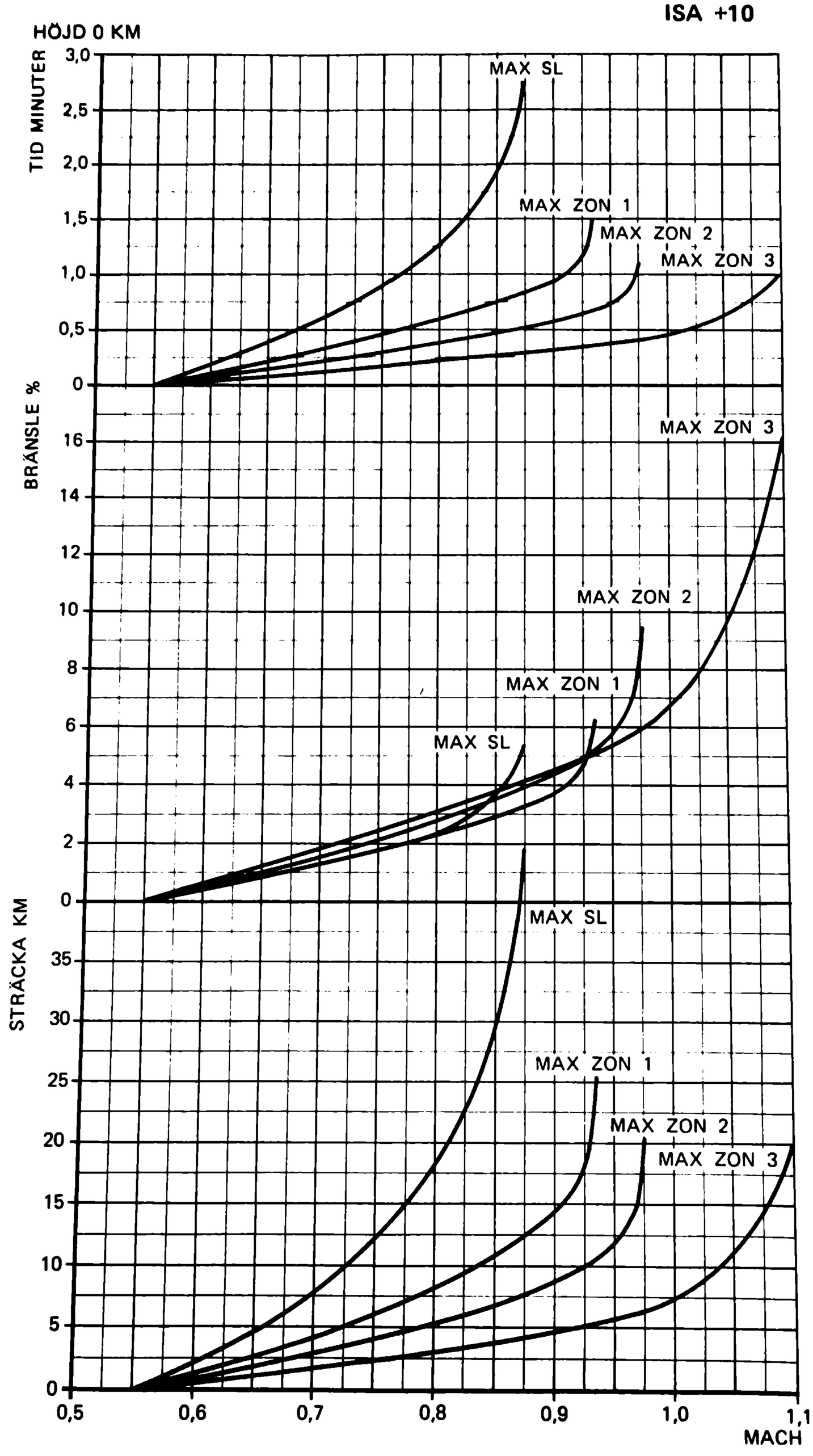
RENT FPL
ISA +10



# ACCELERATION

**LASTALTERNATIV GRUPP 1**
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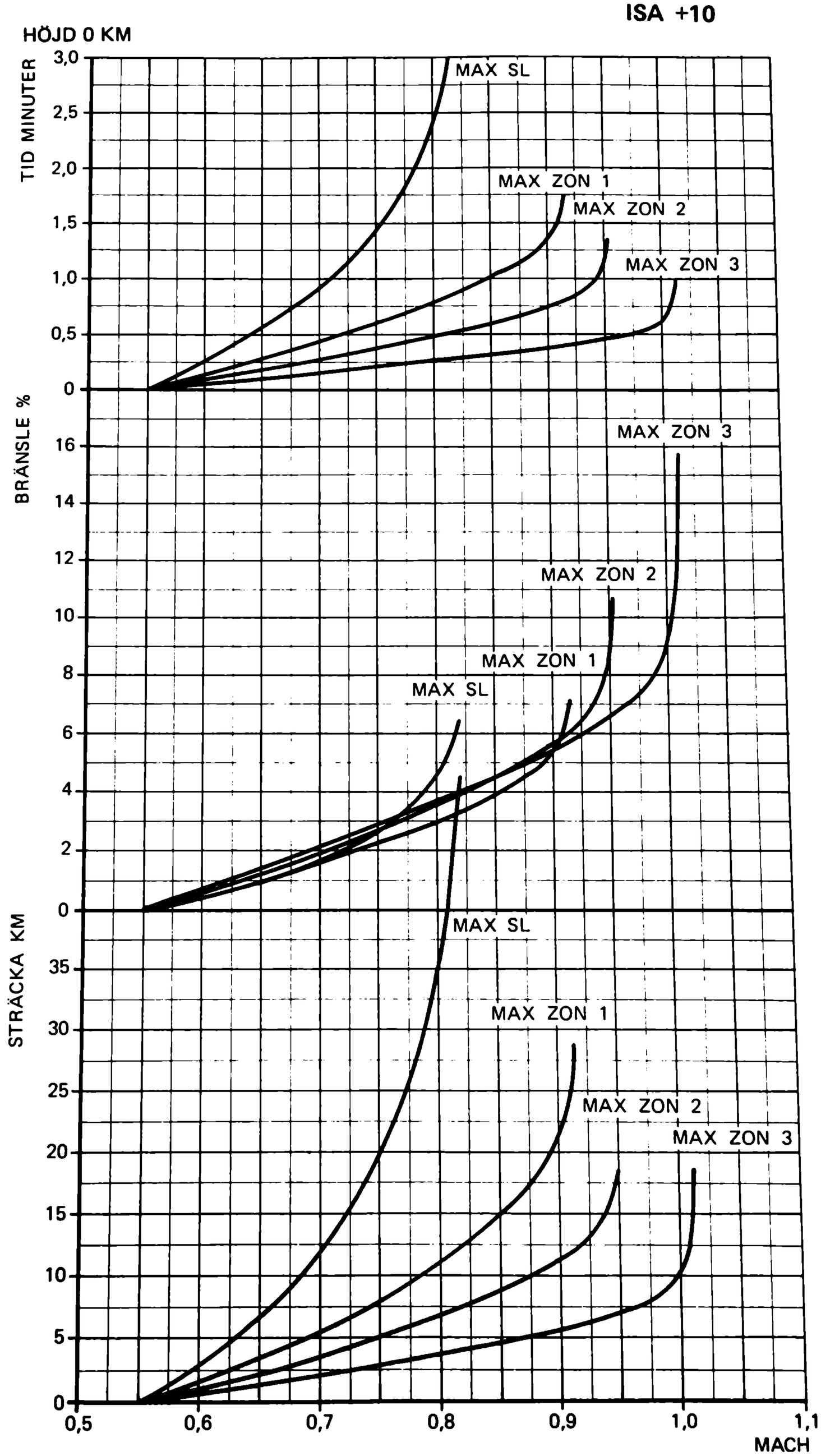

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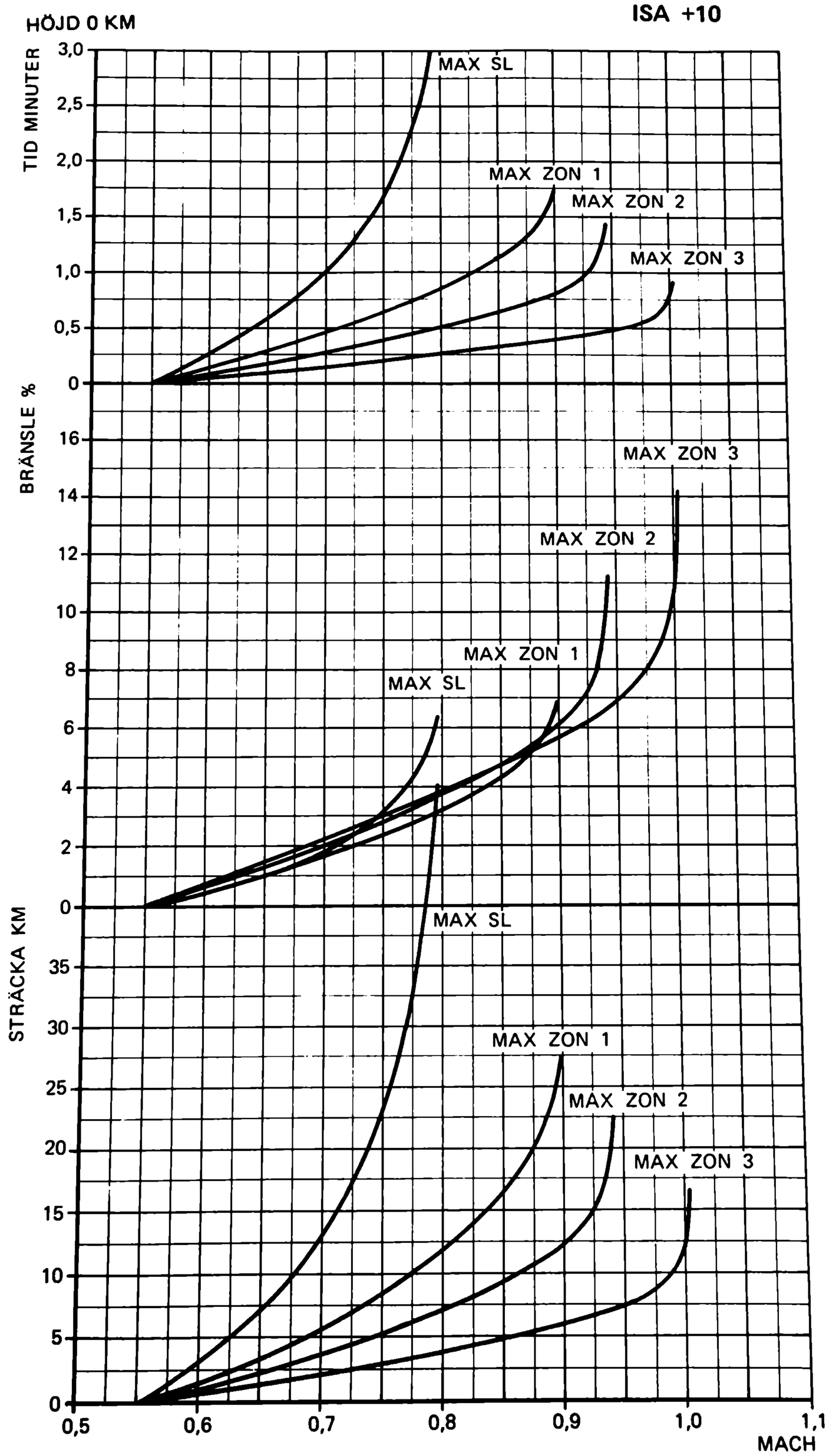

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**LASTALTERNATIV GRUPP 3**
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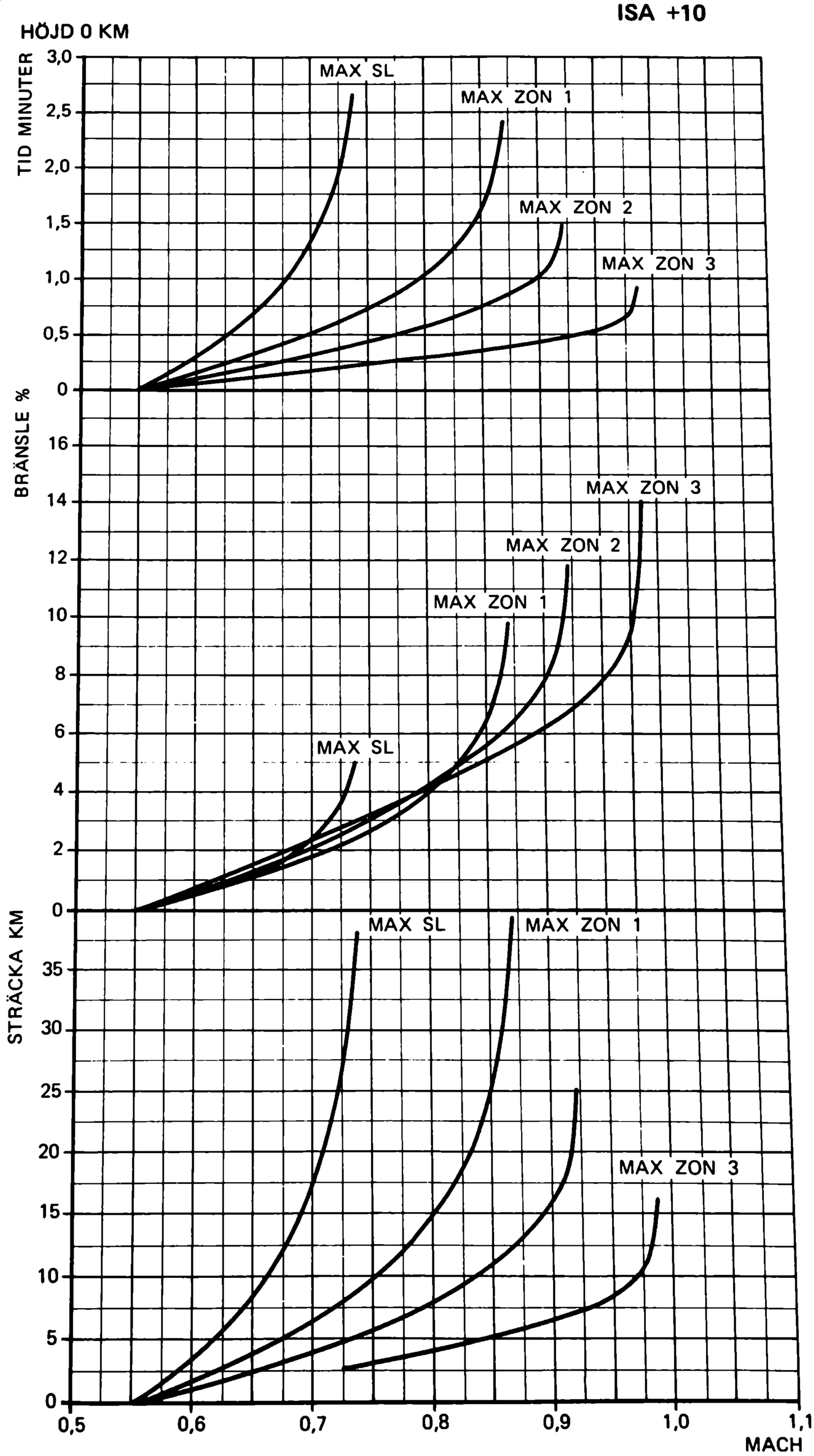

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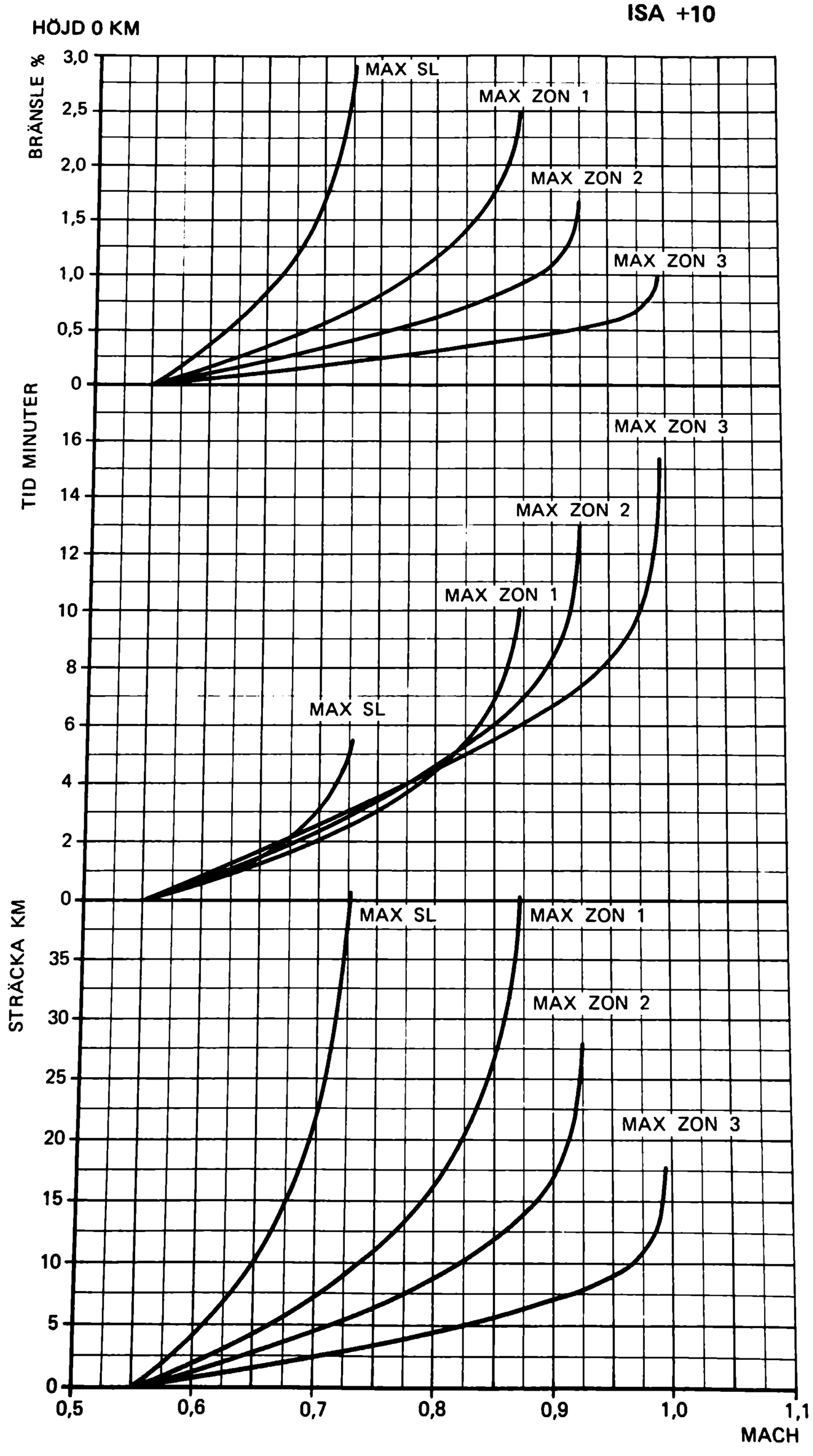
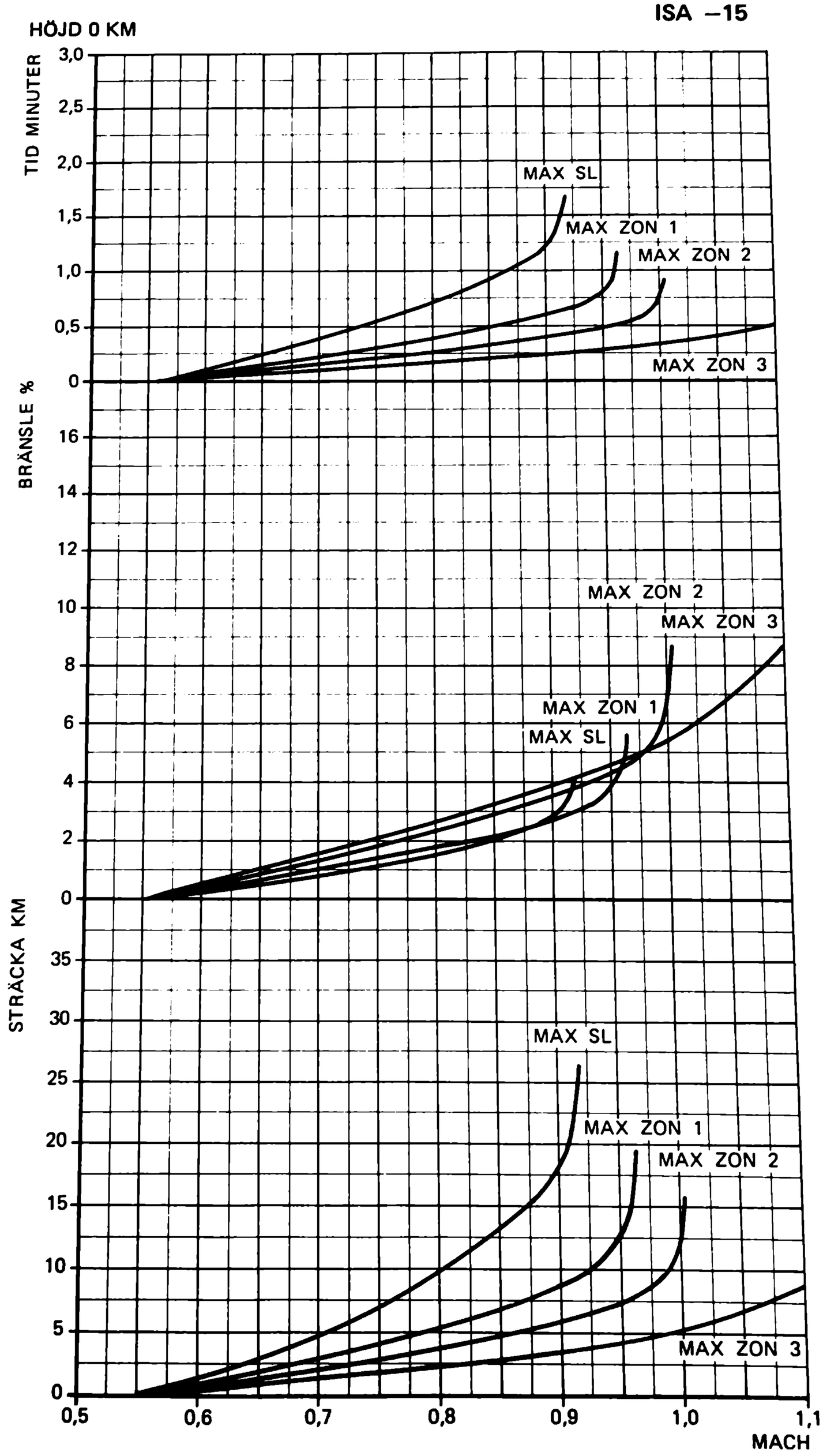


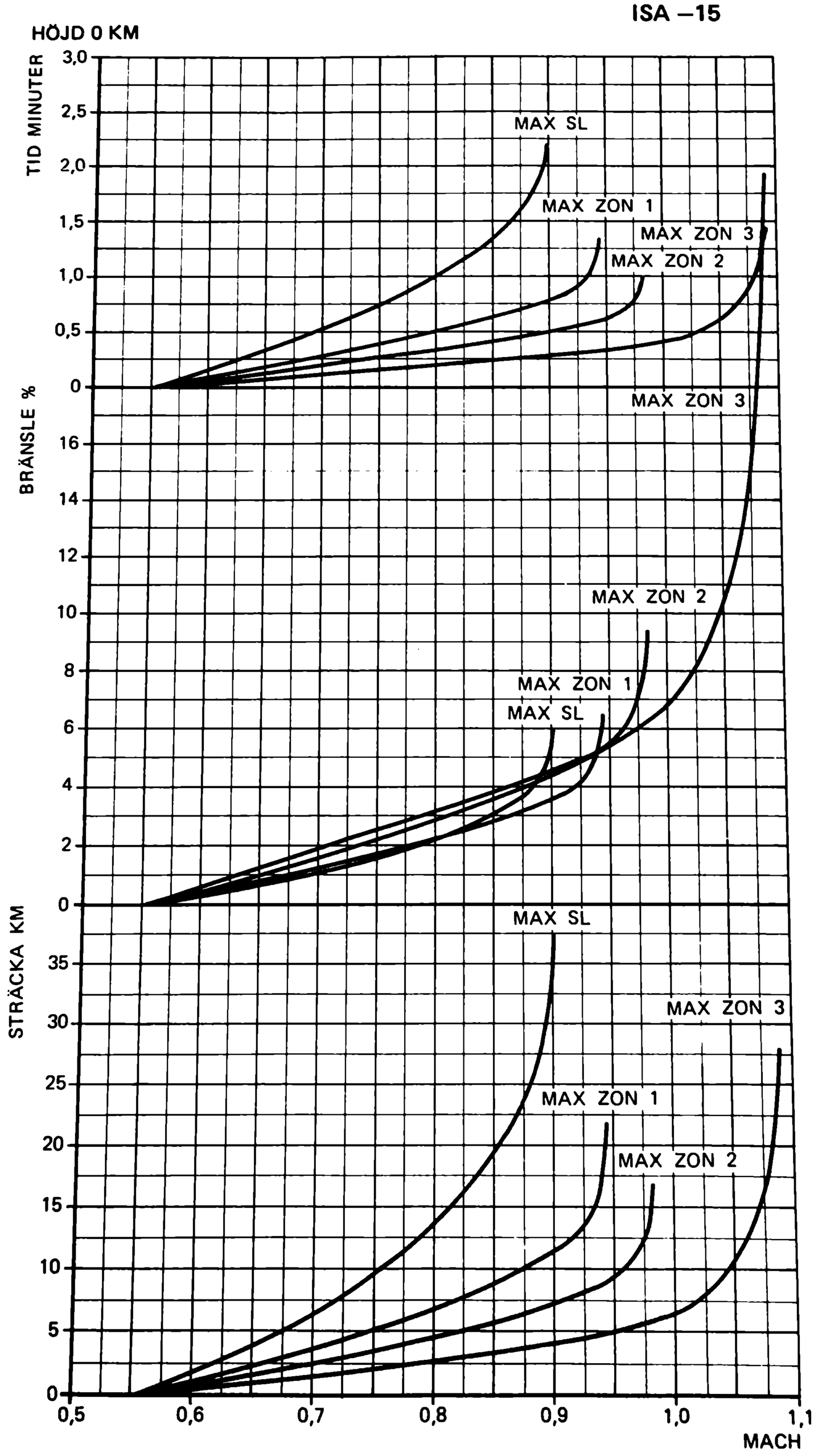
# ACCELERATION

RENT FPL
ISA −15



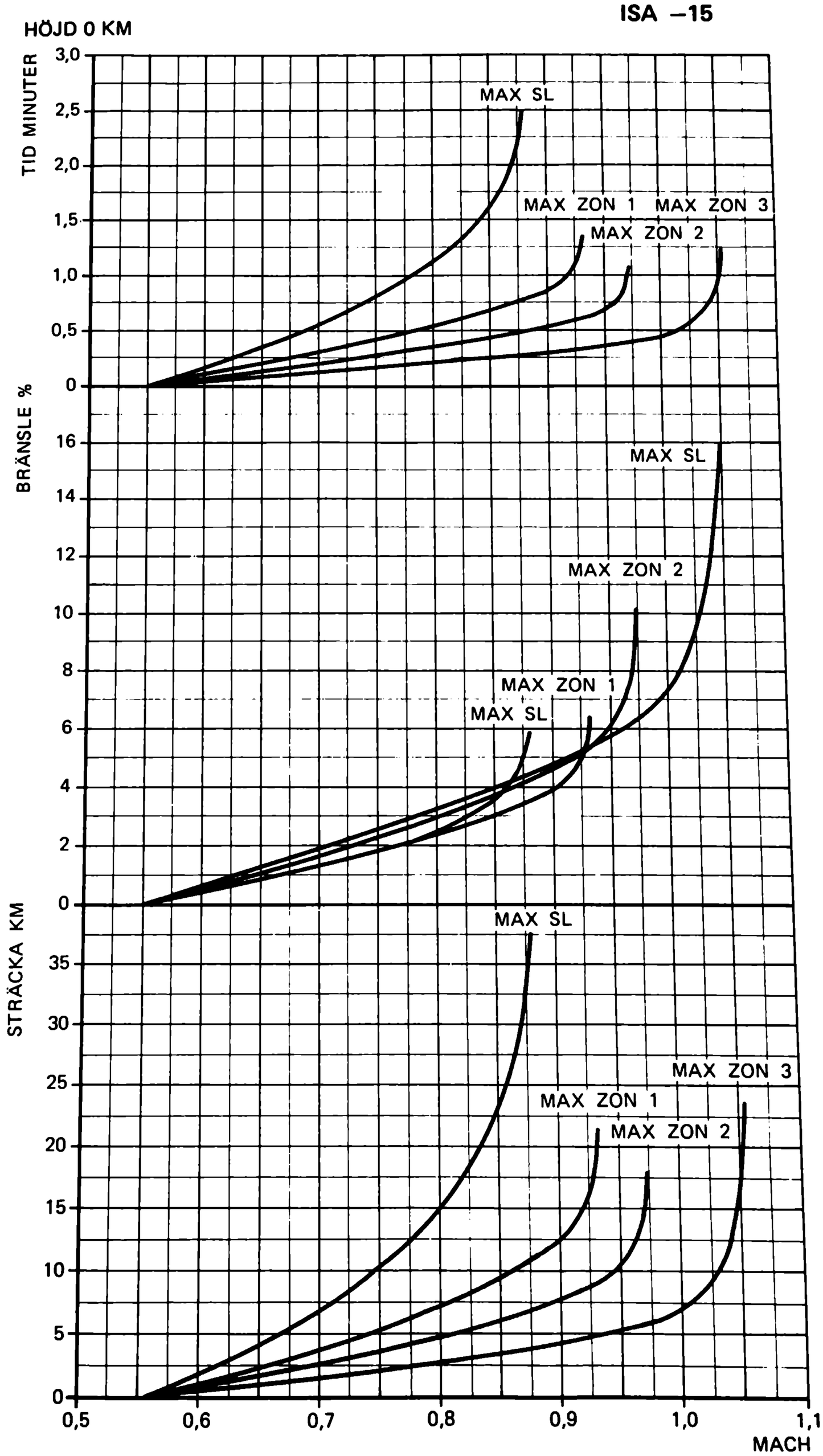
# ACCELERATION

**LASTALTERNATIV GRUPP 1**
**ISA –15**



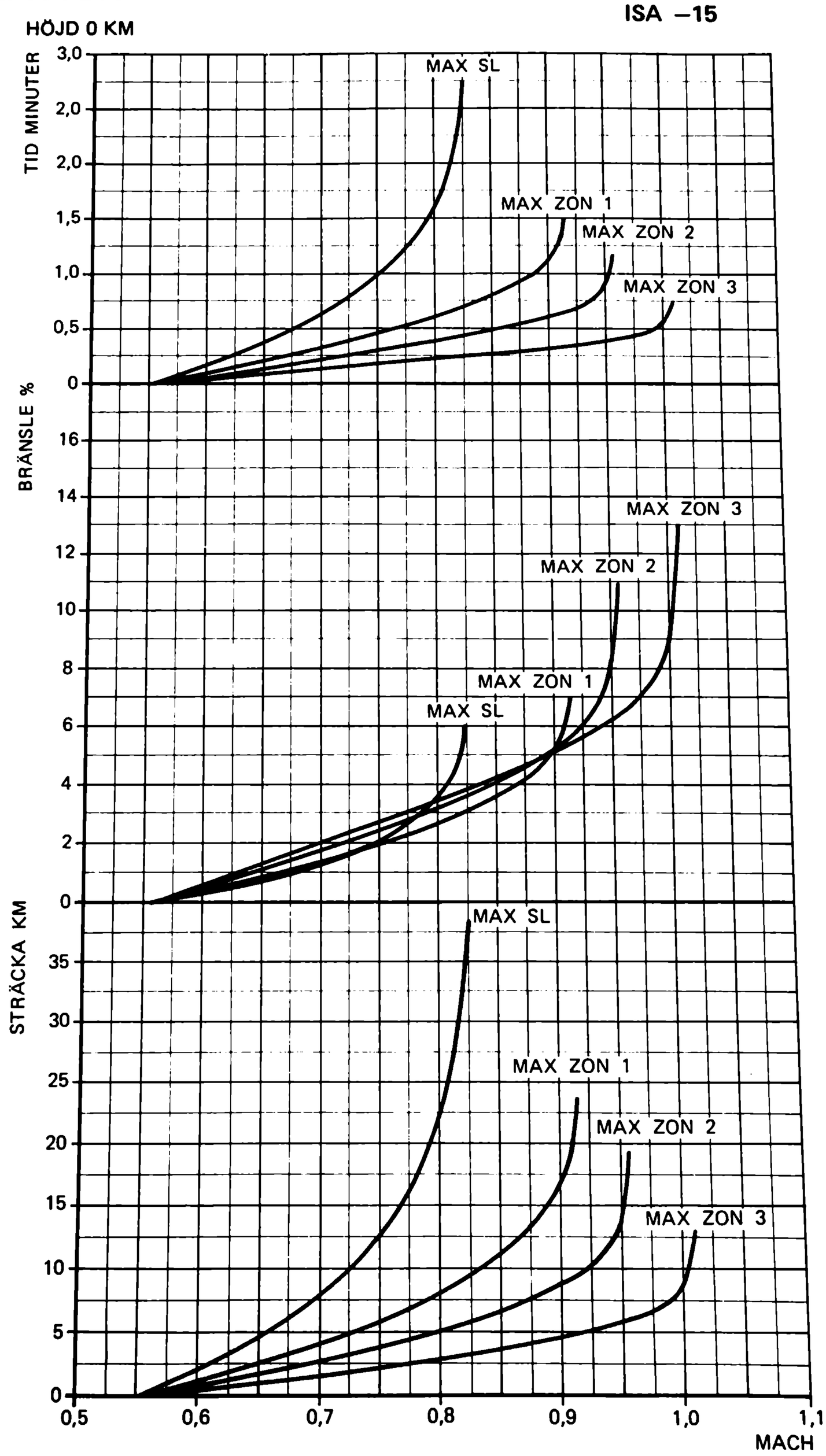
# ACCELERATION

**LASTALTERNATIV GRUPP 2**
**ISA –15**



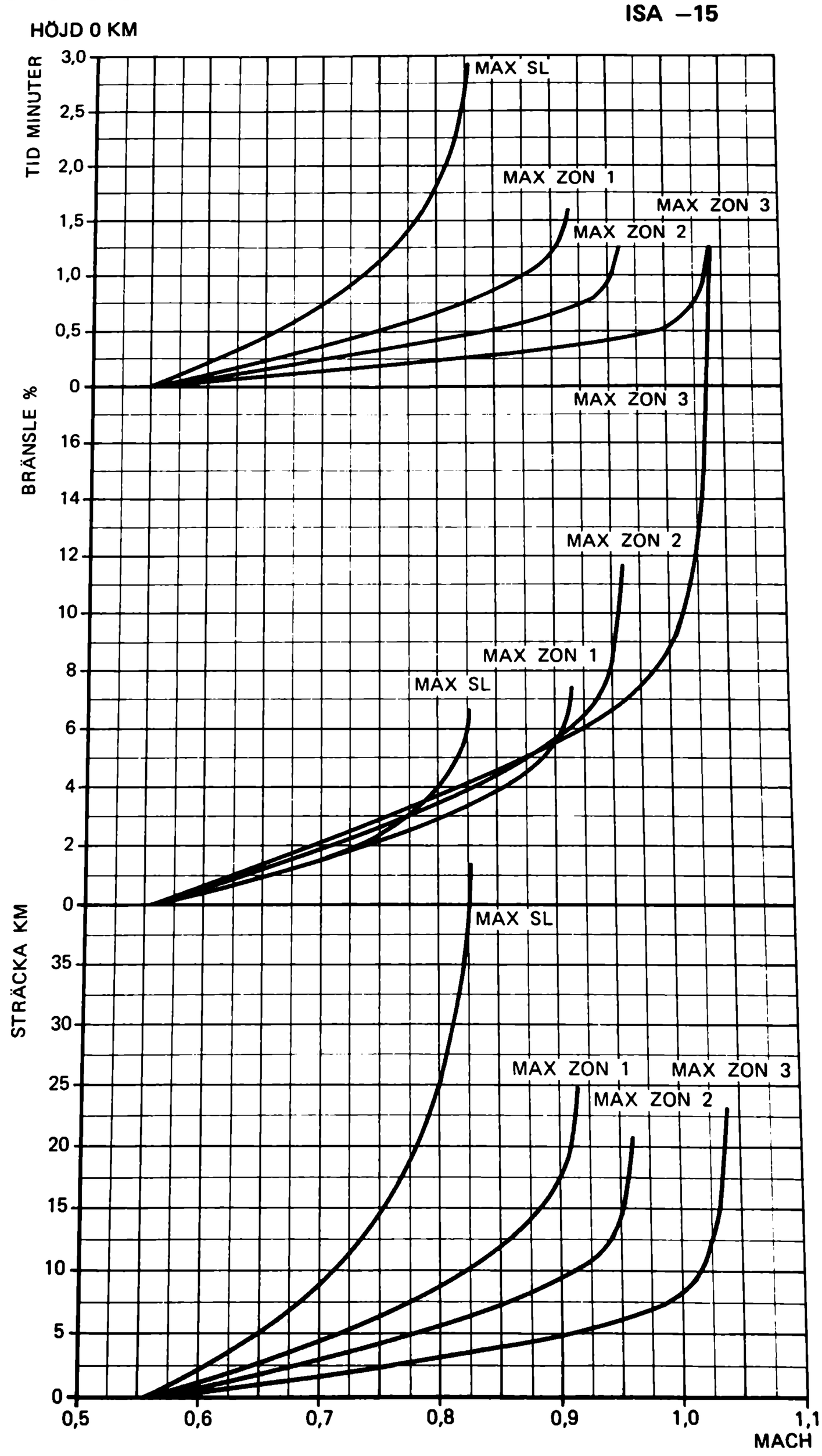
# ACCELERATION

**LASTALTERNATIV GRUPP 3**
**ISA –15**



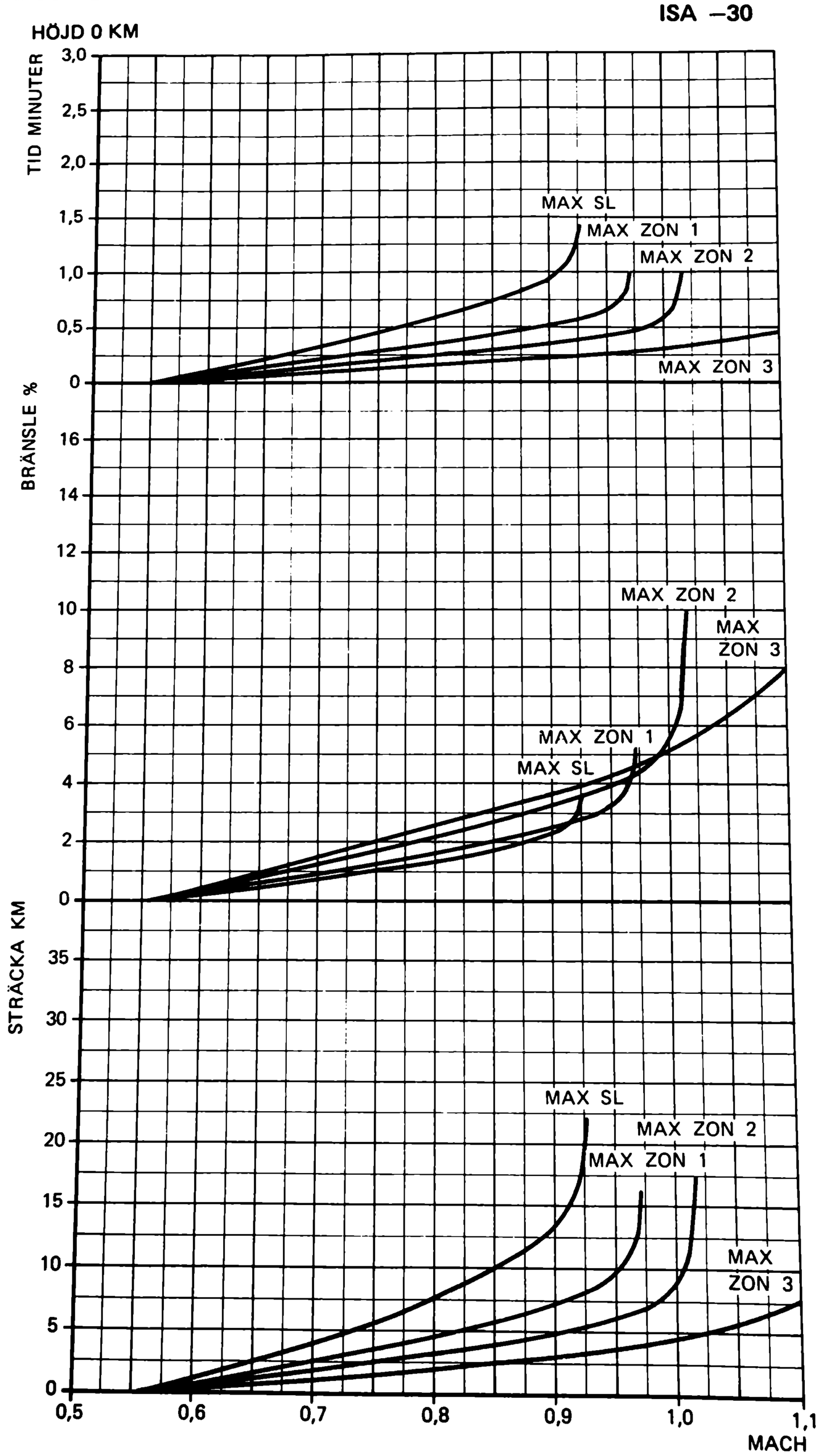
# ACCELERATION

**LASTALTERNATIV GRUPP 4**
**ISA –15**



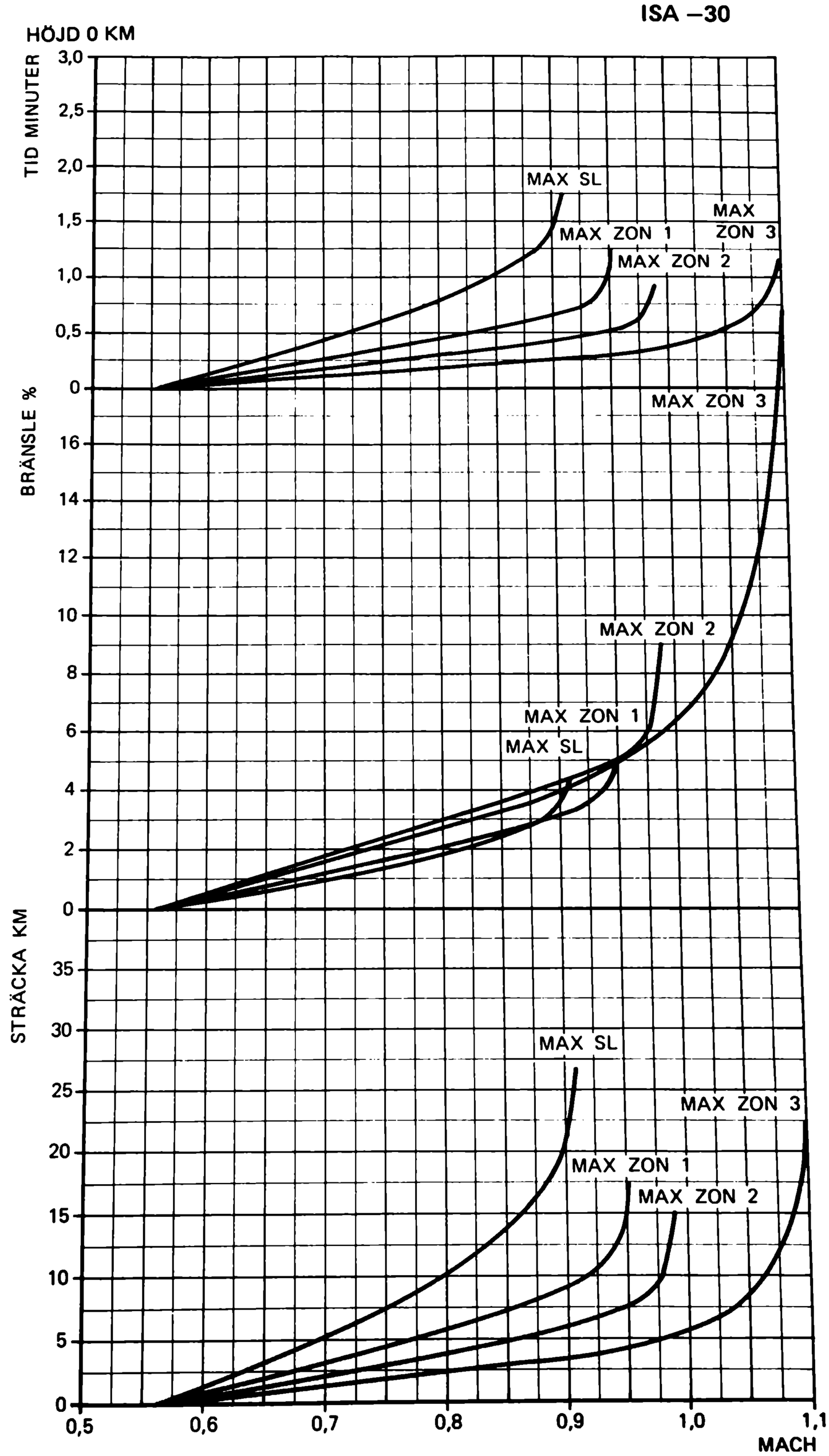
# ACCELERATION

RENT FPL
ISA –30



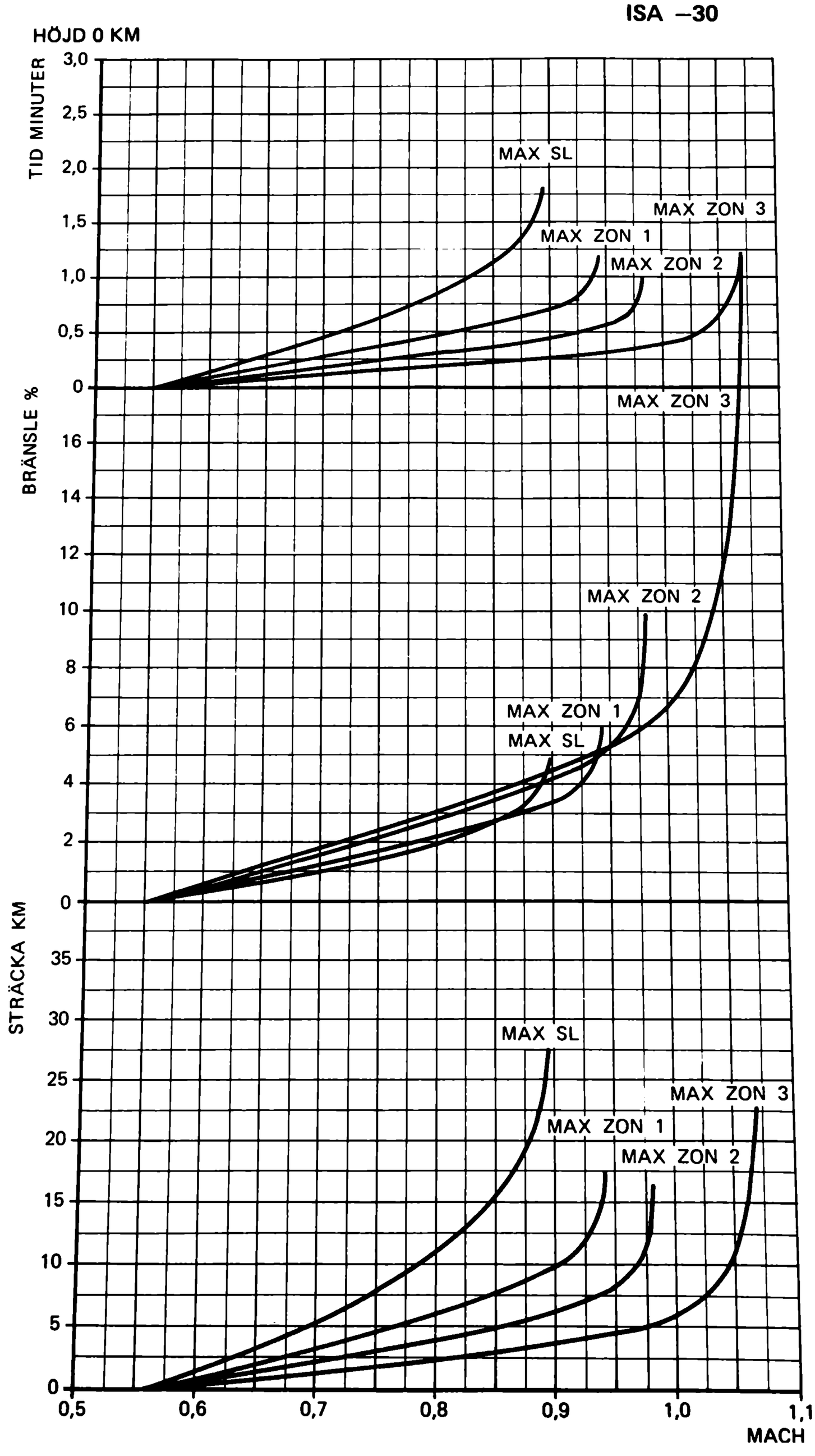
# ACCELERATION

**LASTALTERNATIV GRUPP 1**
**ISA –30**



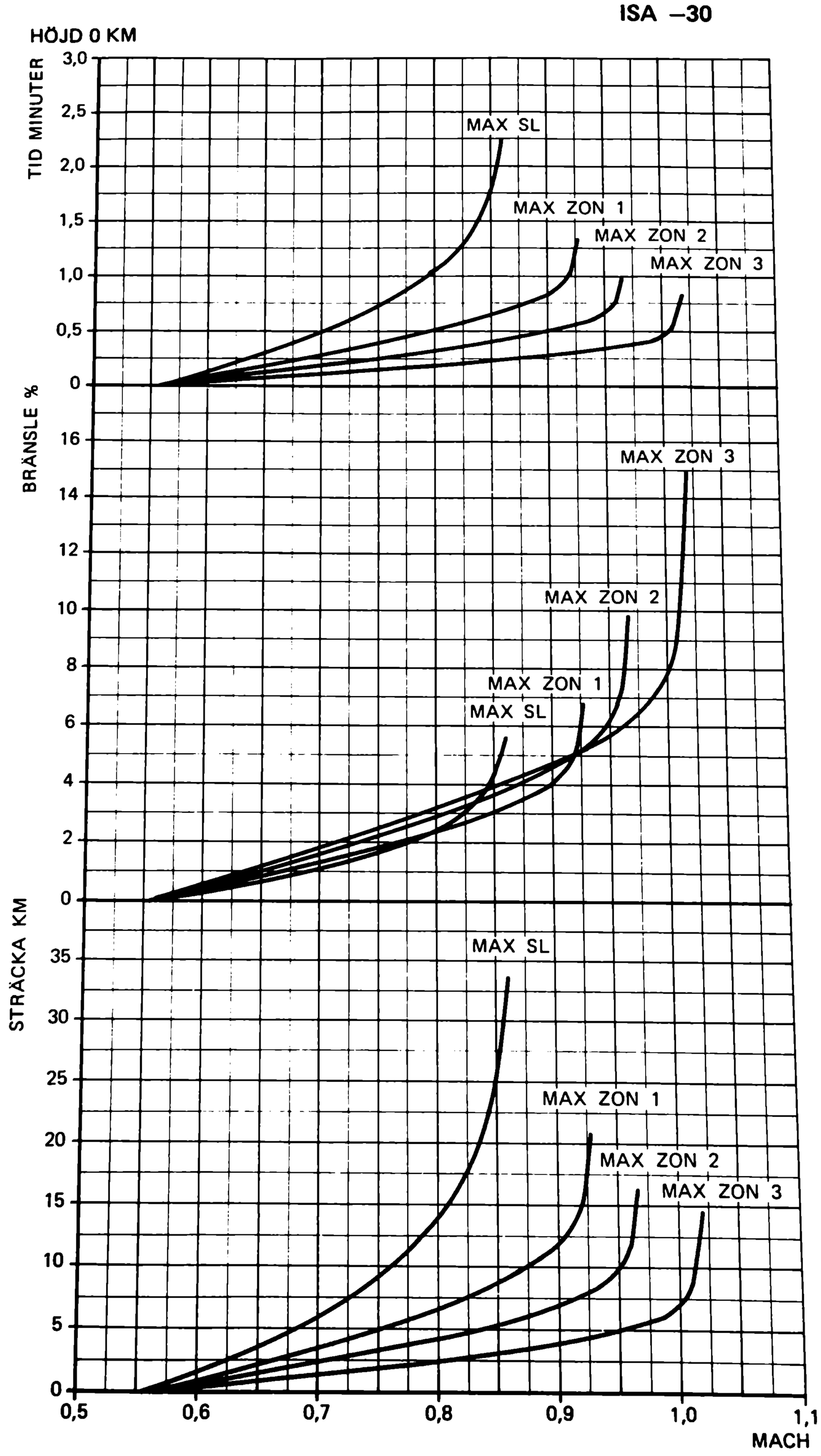
# ACCELERATION

**LASTALTERNATIV GRUPP 2**
**ISA –30**



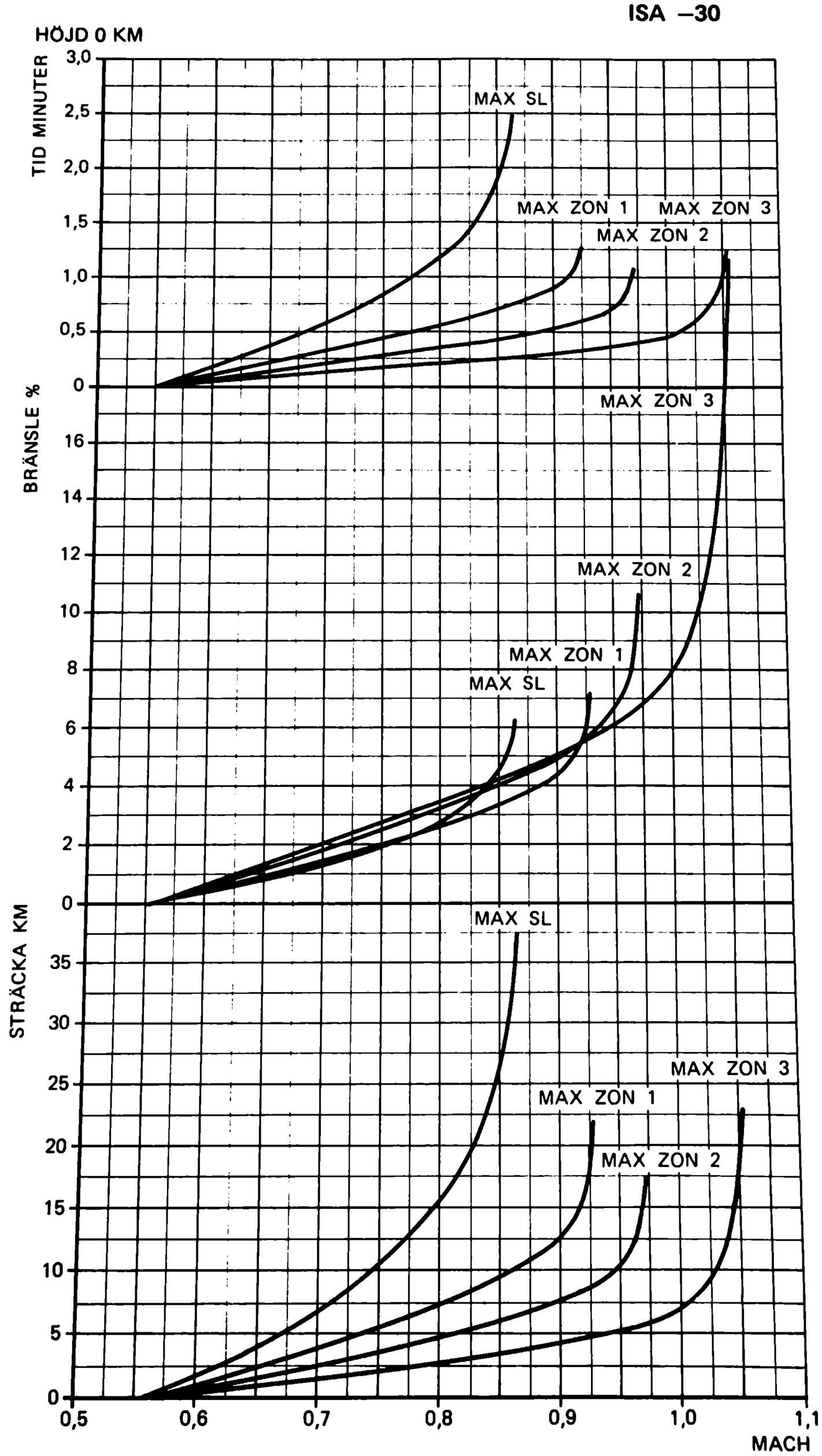
# ACCELERATION

**LASTALTERNATIV GRUPP 3**
**ISA –30**



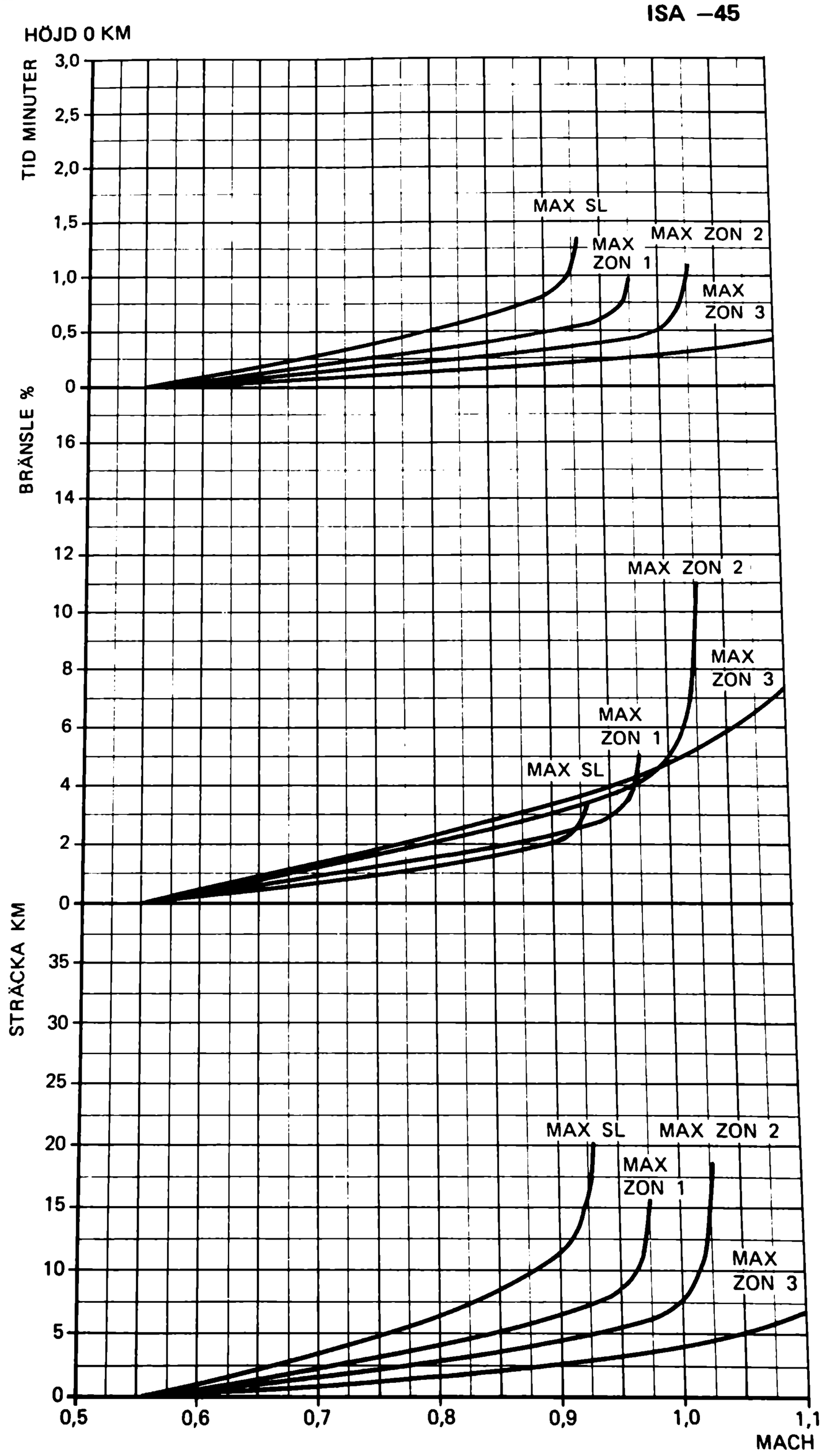
# ACCELERATION

**LASTALTERNATIV GRUPP 4**
**ISA –30**



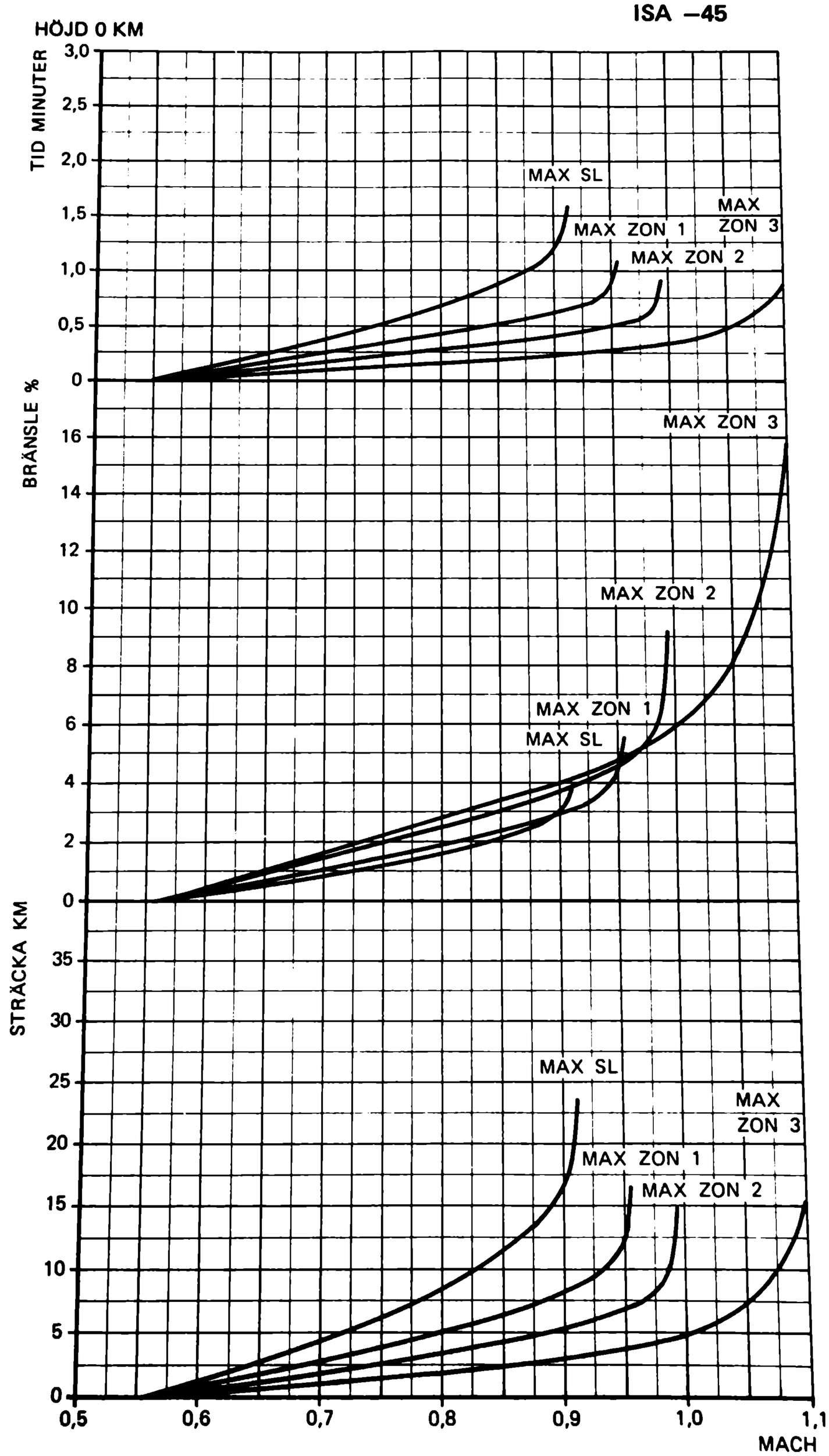
# ACCELERATION

**RENT FPL**
**ISA –45**



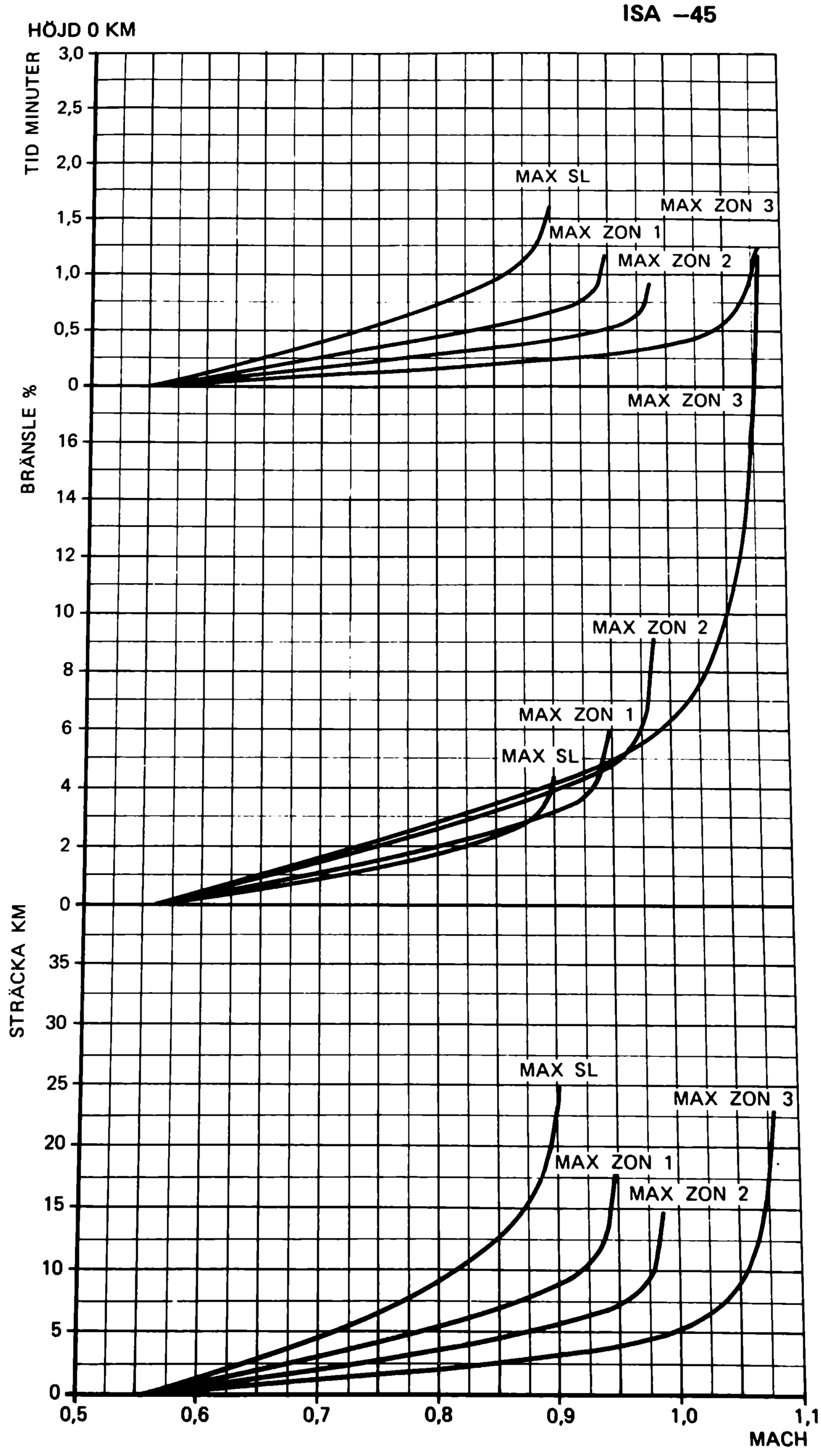
# ACCELERATION

**LASTALTERNATIV GRUPP 1**
**ISA –45**



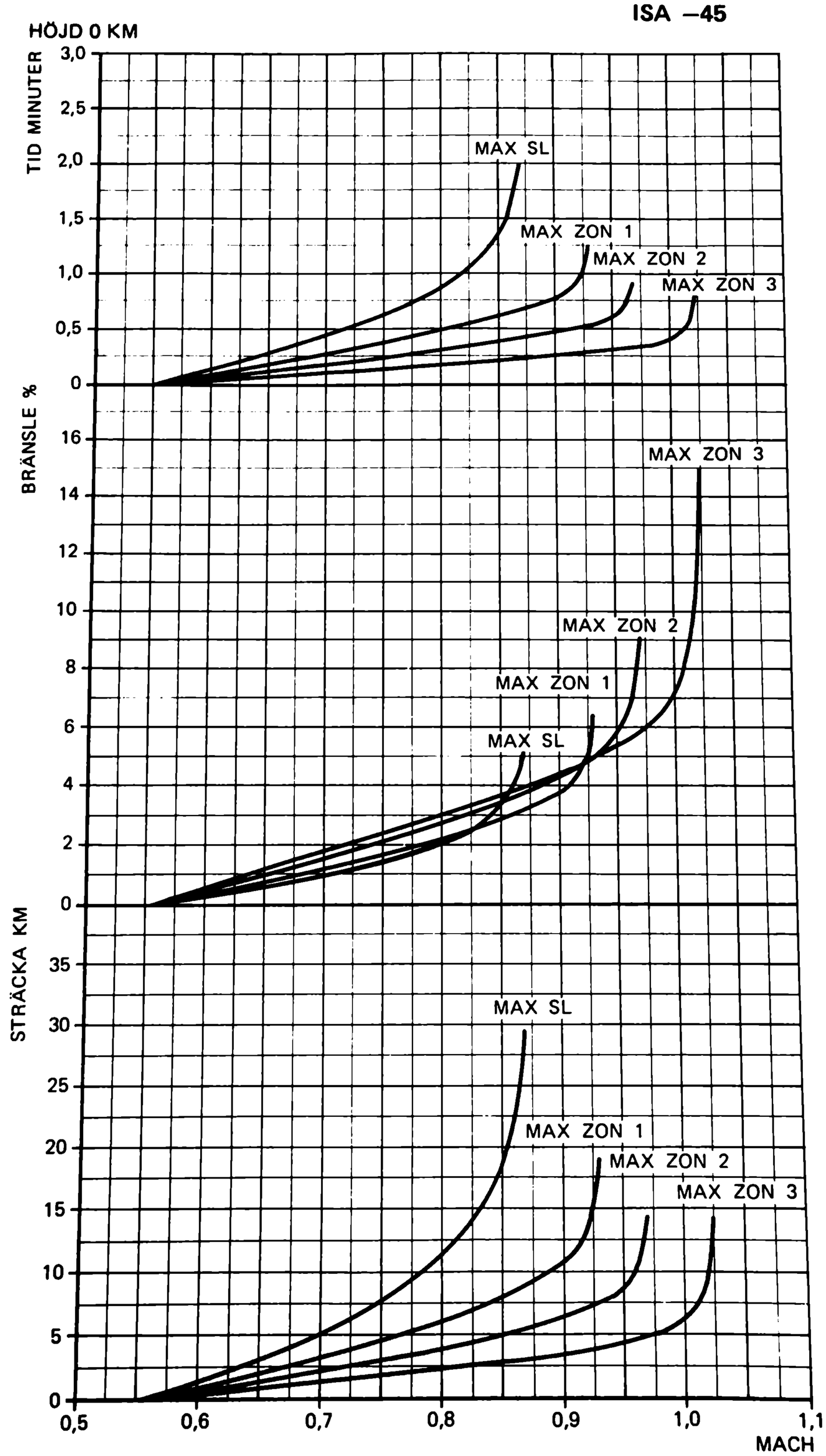
# ACCELERATION

**LASTALTERNATIV GRUPP 2**
**ISA –45**



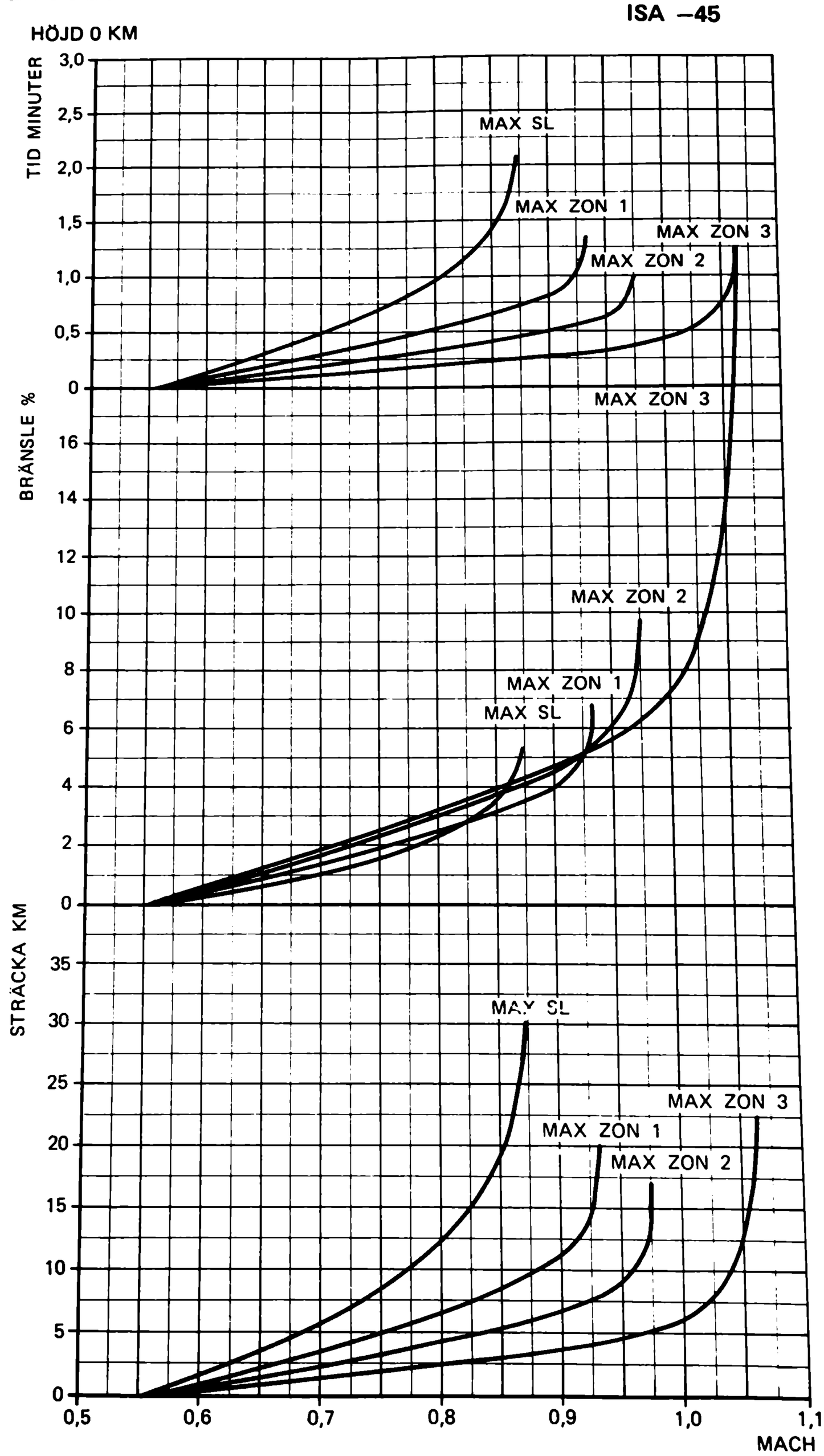
# ACCELERATION

**LASTALTERNATIV GRUPP 3**
**ISA –45**



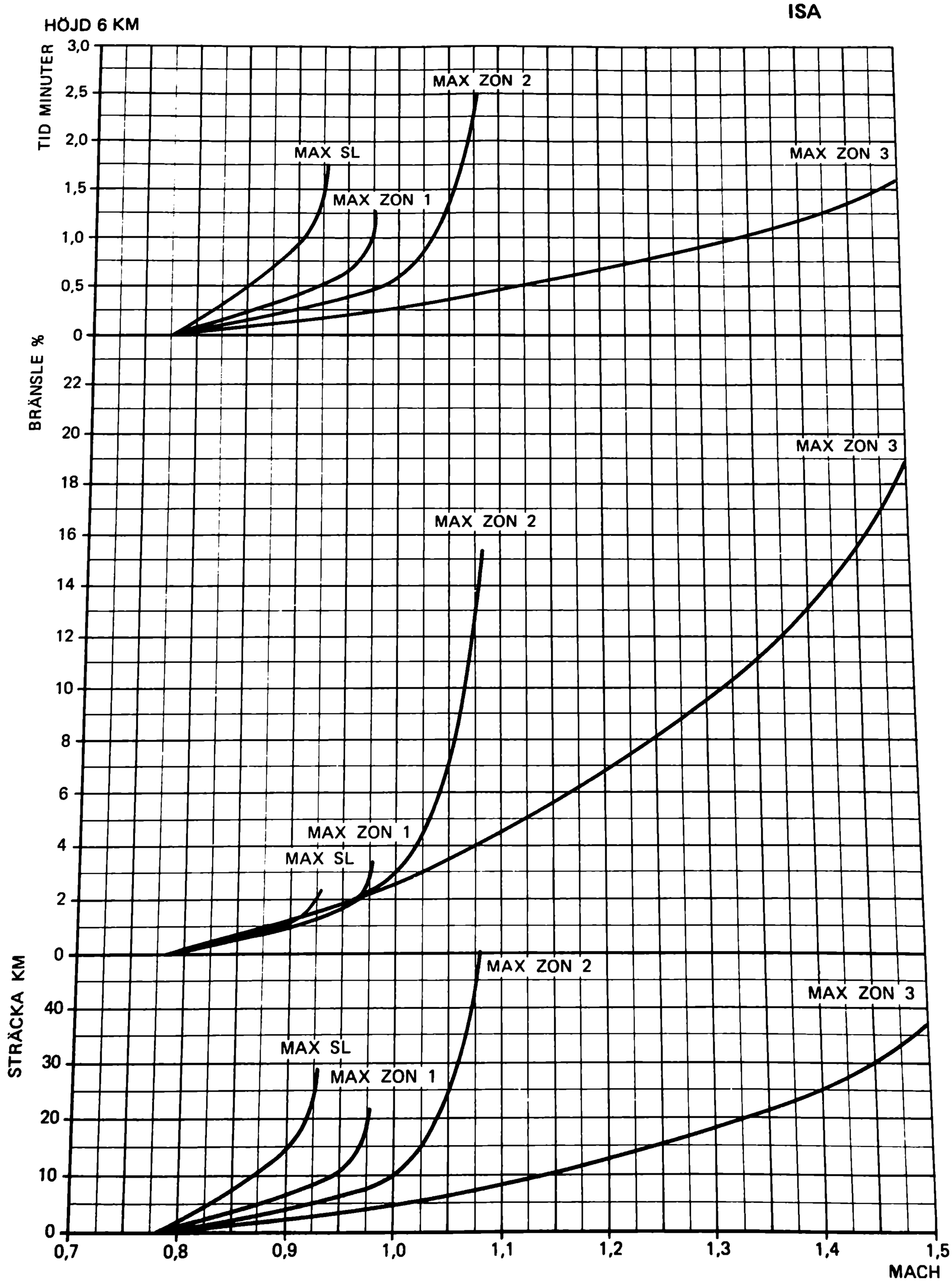
# ACCELERATION

**LASTALTERNATIV GRUPP 4**
**ISA –45**



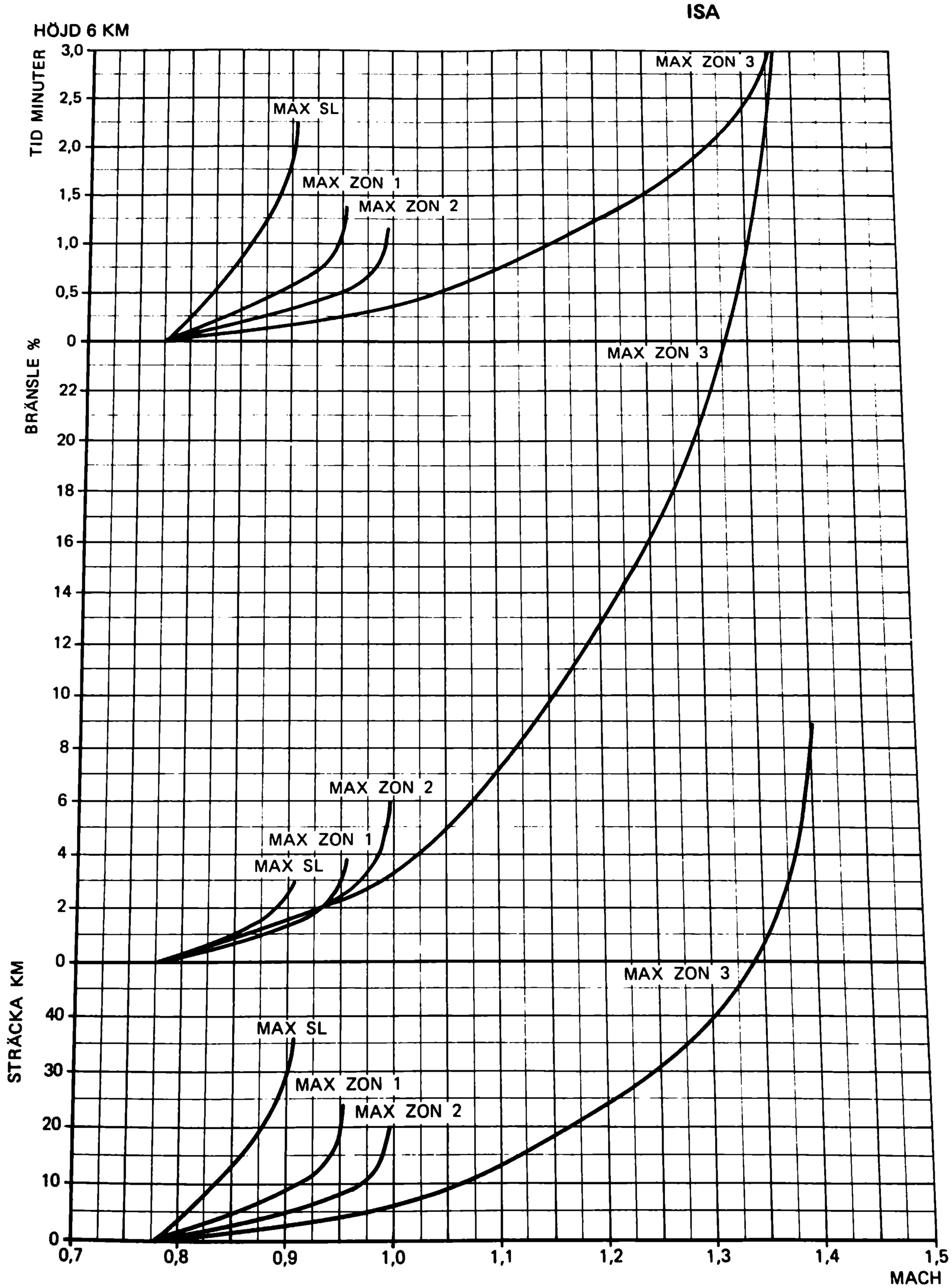
# ACCELERATION

RENT FPL
ISA



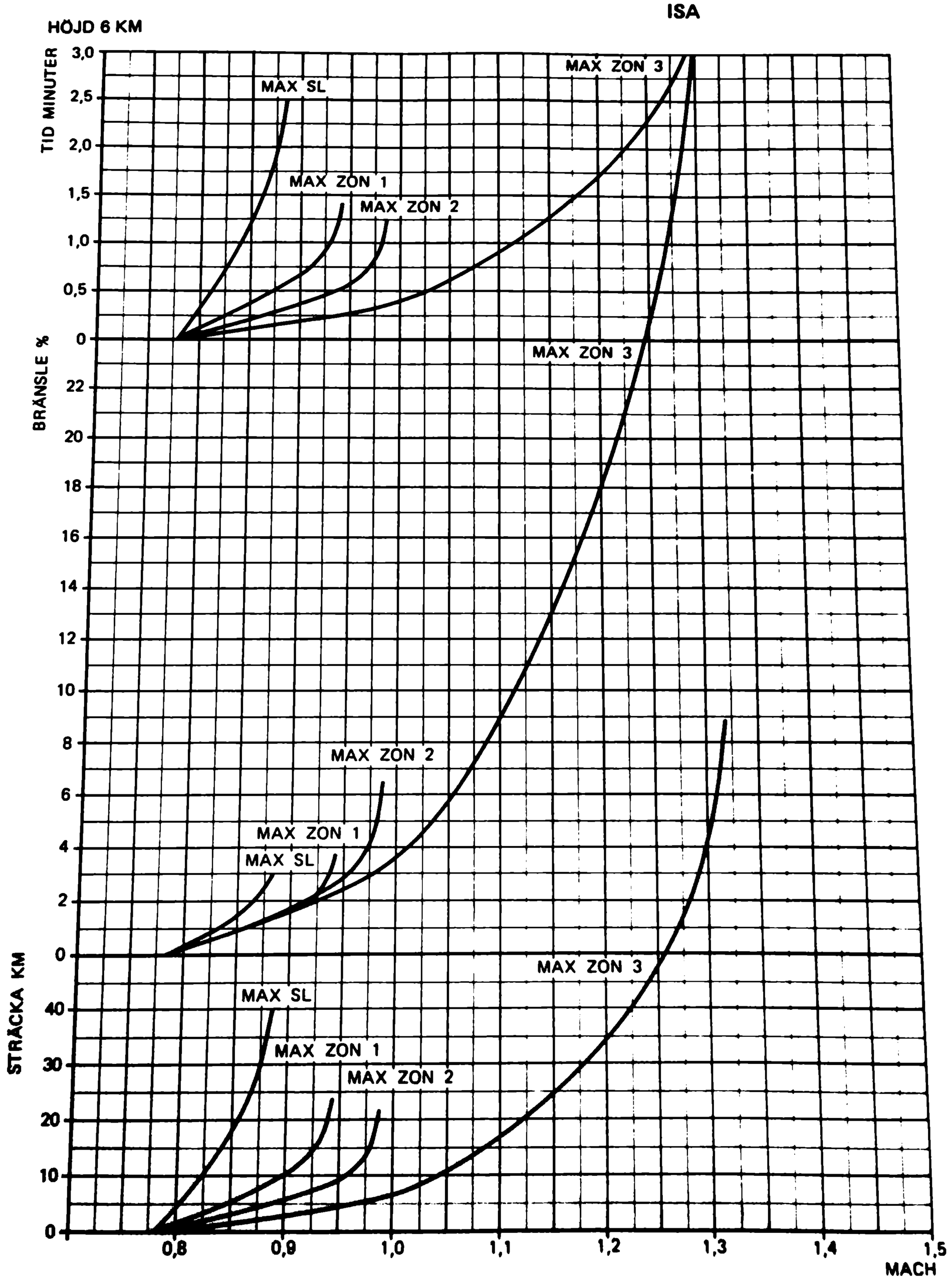
# ACCELERATION

**LASTALTERNATIV GRUPP 1**
**ISA**



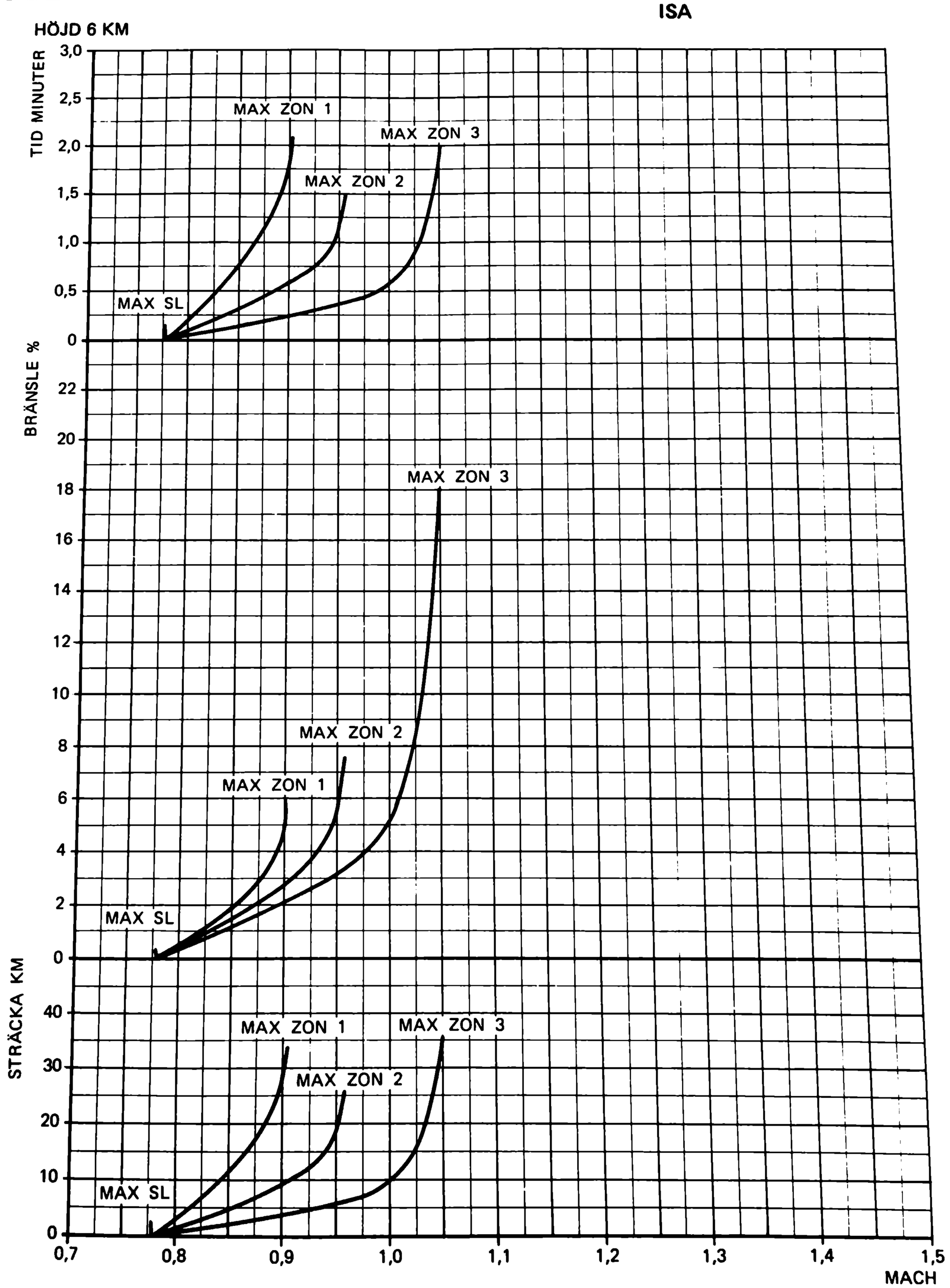
# ACCELERATION

**LASTALTERNATIV GRUPP 2**
**ISA**



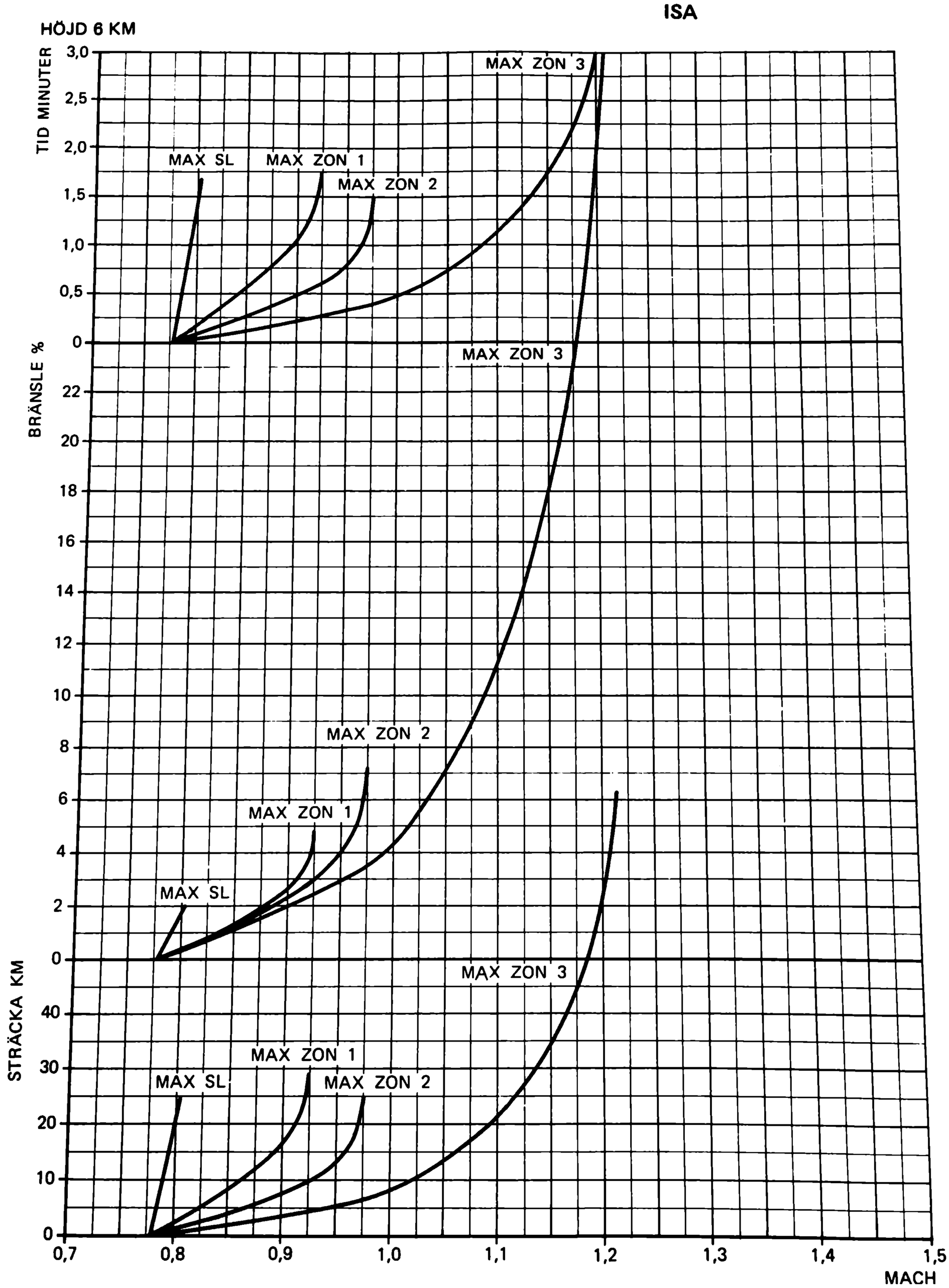
# ACCELERATION

**LASTALTERNATIV GRUPP 3**
**ISA**



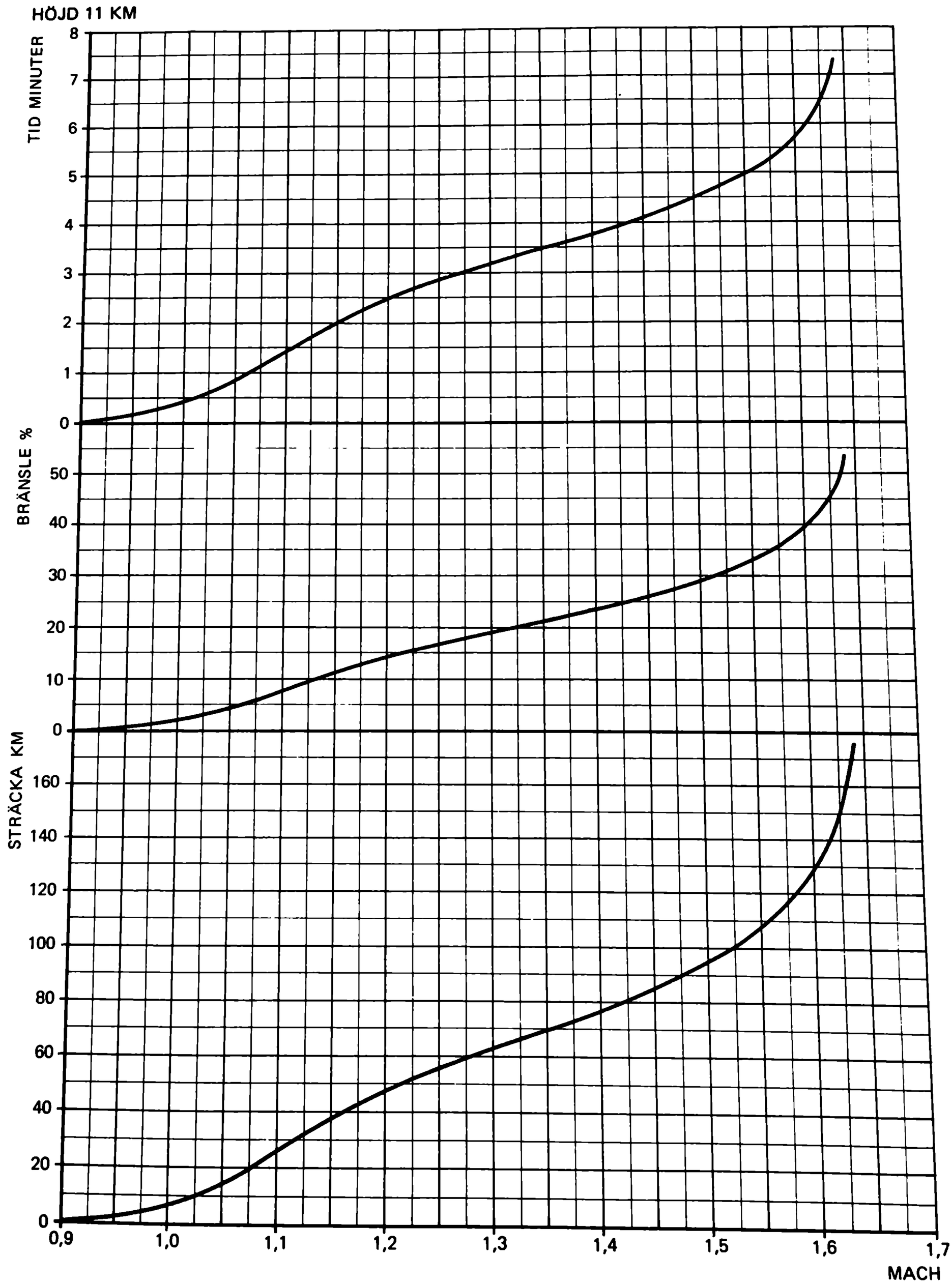
# ACCELERATION

**LASTALTERNATIV GRUPP 4**
**ISA**



# ACCELERATION

**2 AK + 1 RB 24 + 1 RB 05 + XT**
**ISA**



**Innehåll** Sida

DIAGRAMBESKRIVNING ..... 3
Max zon 3 ..... 4
Max zon 2 ..... 9
Max zon 1 ..... 14
Max släckt ..... 19
Max släckt Återflygning 24-28

# STIGNING

# DIAGRAMBESKRIVNING

## Stigning med M = 0,90

Lastalt: Rent fpl + grupp 1 — 4
Atmosfär: ISA, ISA +10, ISA −15
Pådrag: Max zon 3 och max zon 2
Vikt: Startvikt −275 kg (för start och acc till M = 0,55)

## Stigning med $V_i$ = 675 till M = 0,90

Lastalt: Rent fpl + grupp 1 — 4
Atmosfär: ISA, ISA +10, ISA −15
Pådrag: Max zon 1 och max släckt
Vikt: Startvikt −275 kg ( för start och acc till M = 0,55)

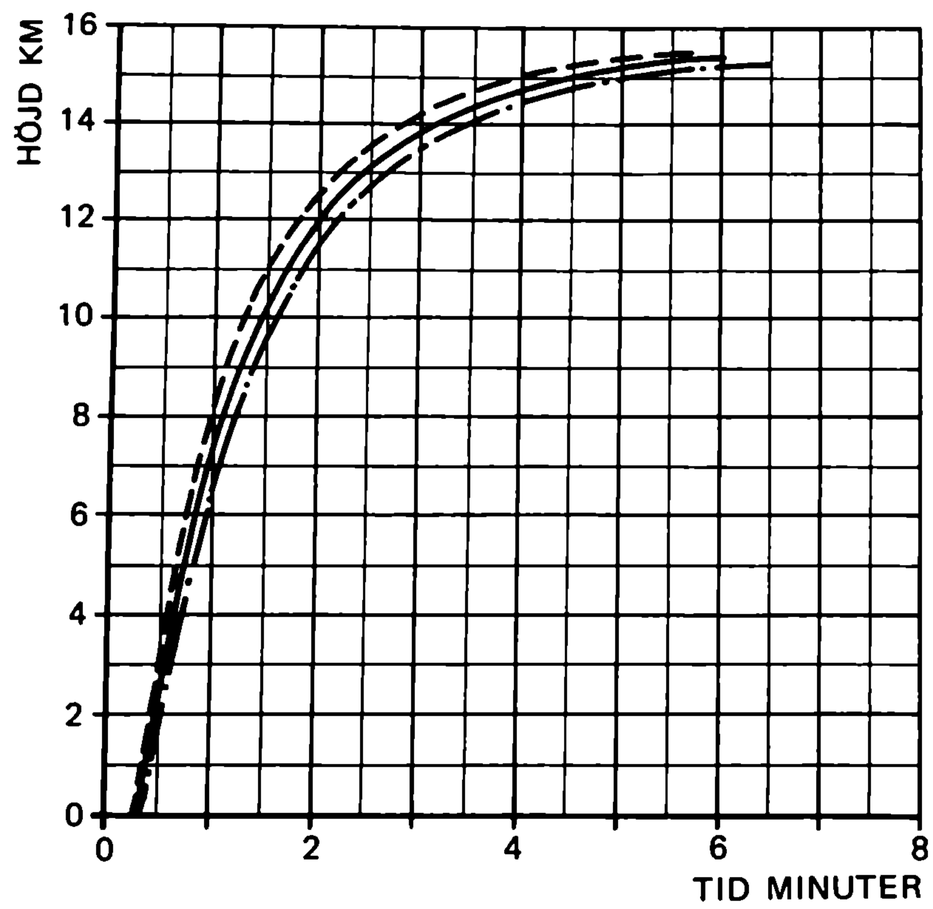
## Stigning med $V_i$ = 675 till M = 0,90 Återflygning

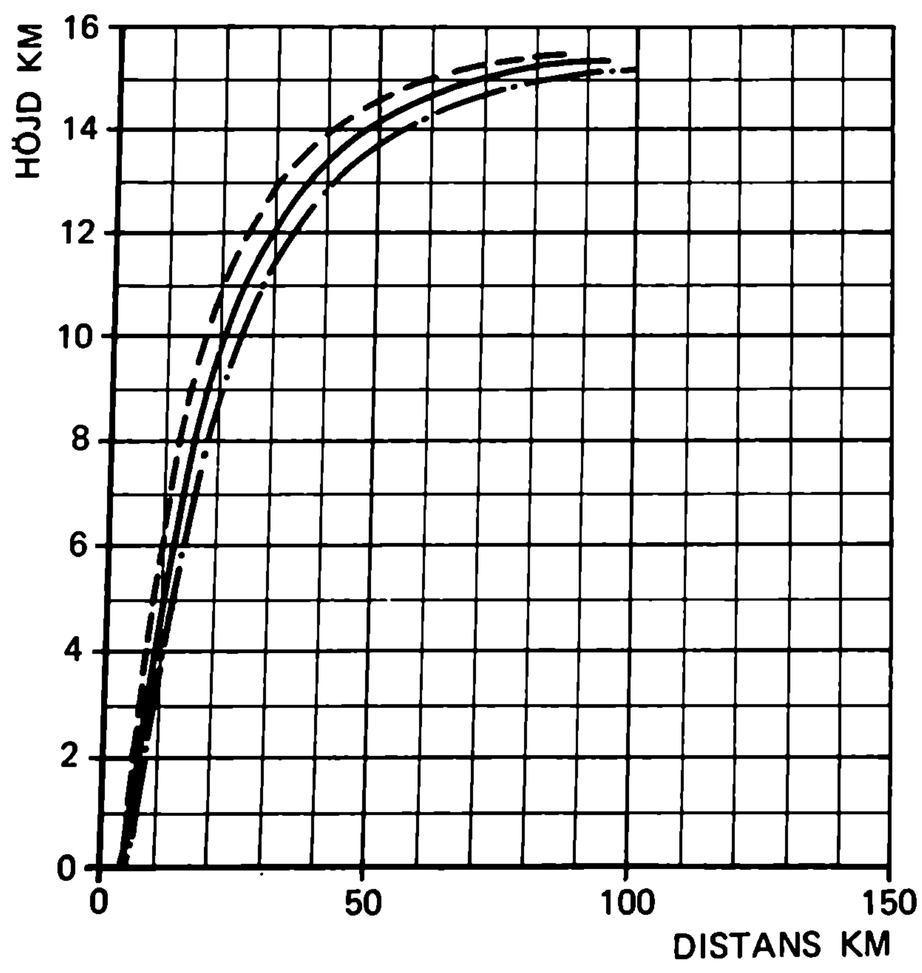
Lastalt: Rent fpl + grupp 1 — 4
Atmosfär: ISA, ISA +10, ISA −15
Pådrag: Max släckt
Vikt: Motsvarande fpl med 50 % kvarvarande bränsle

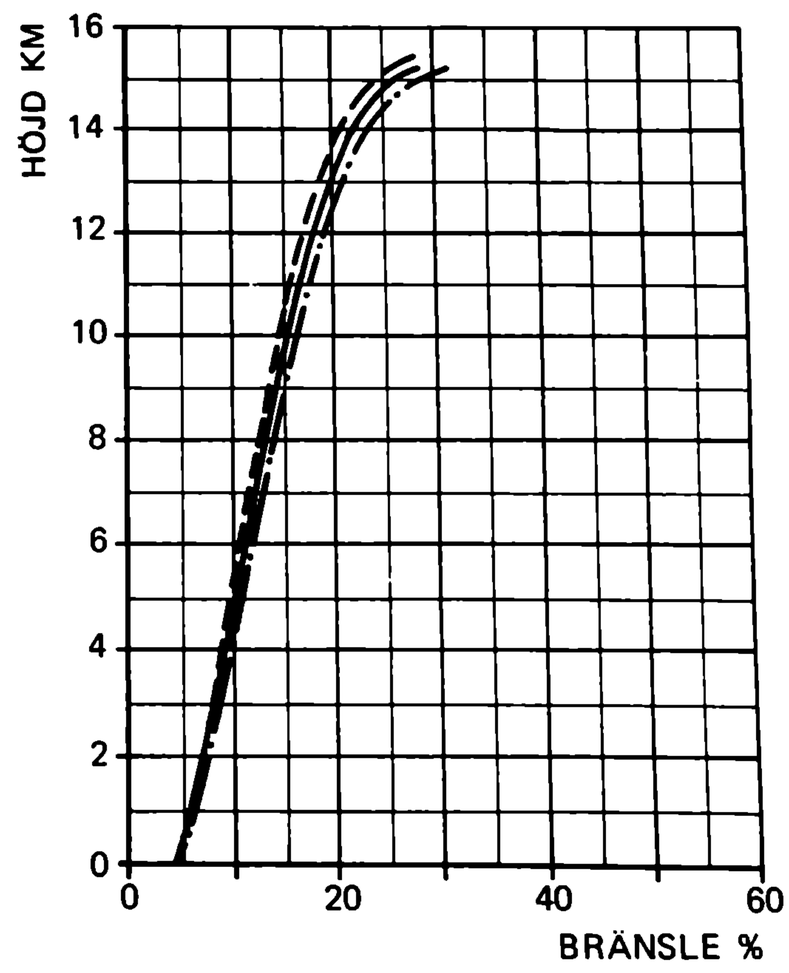
# STIGNING

**RENT FPL**
**MAX ZON 3**

**STIGNING MED M = 0,9**
**INKL ACC FRÅN M = 0,55**



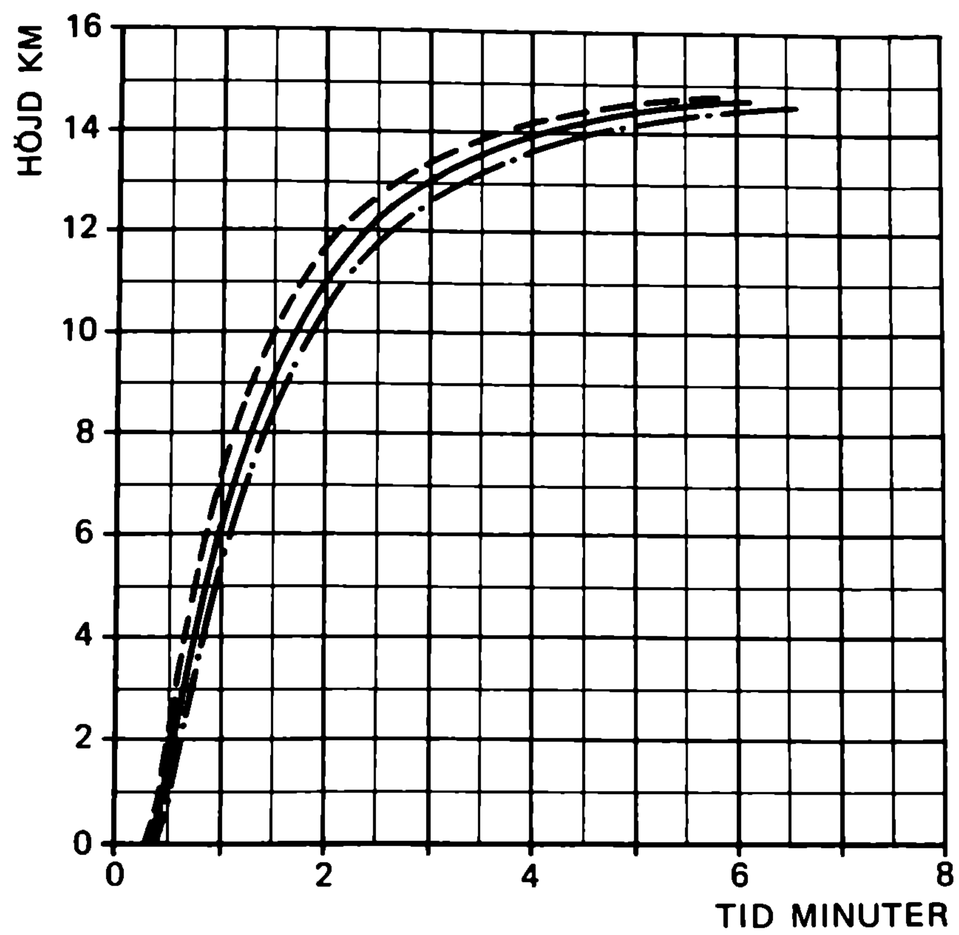



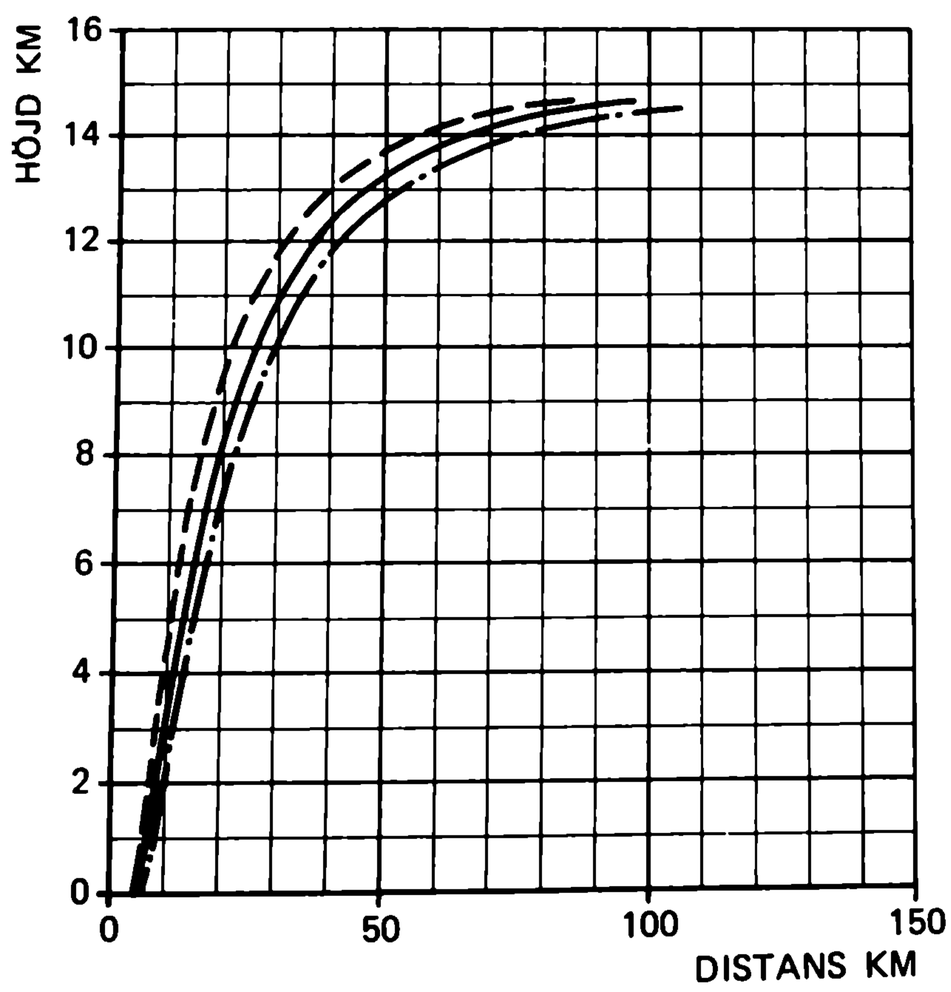

ISA ————
ISA+10 —·—·—
ISA−15 — — — —

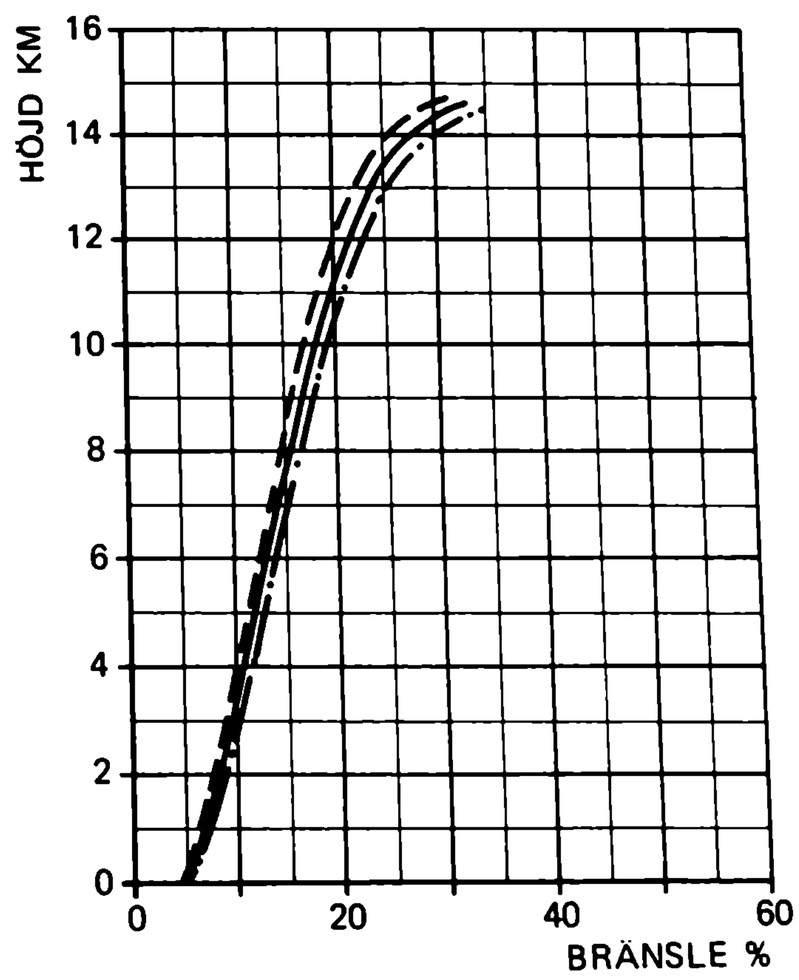
# STIGNING

**LASTALTERNATIV GRUPP 1**
**MAX ZON 3**

STIGNING MED M = 0,9
INCL ACC FRÅN M = 0,55



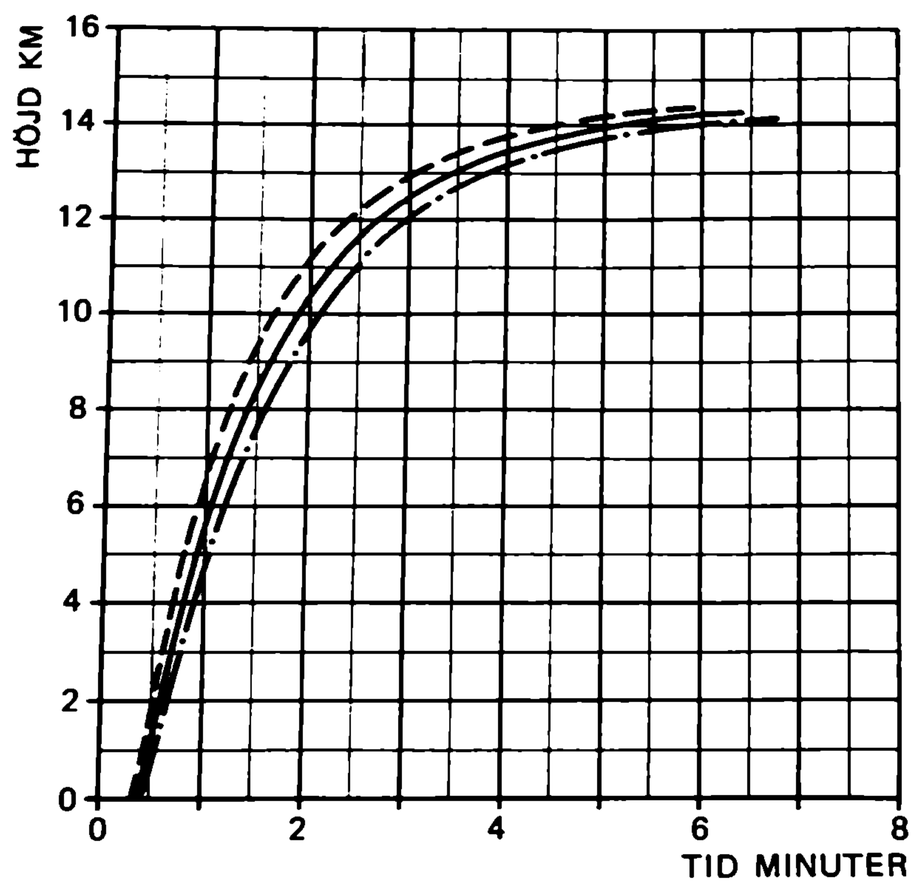



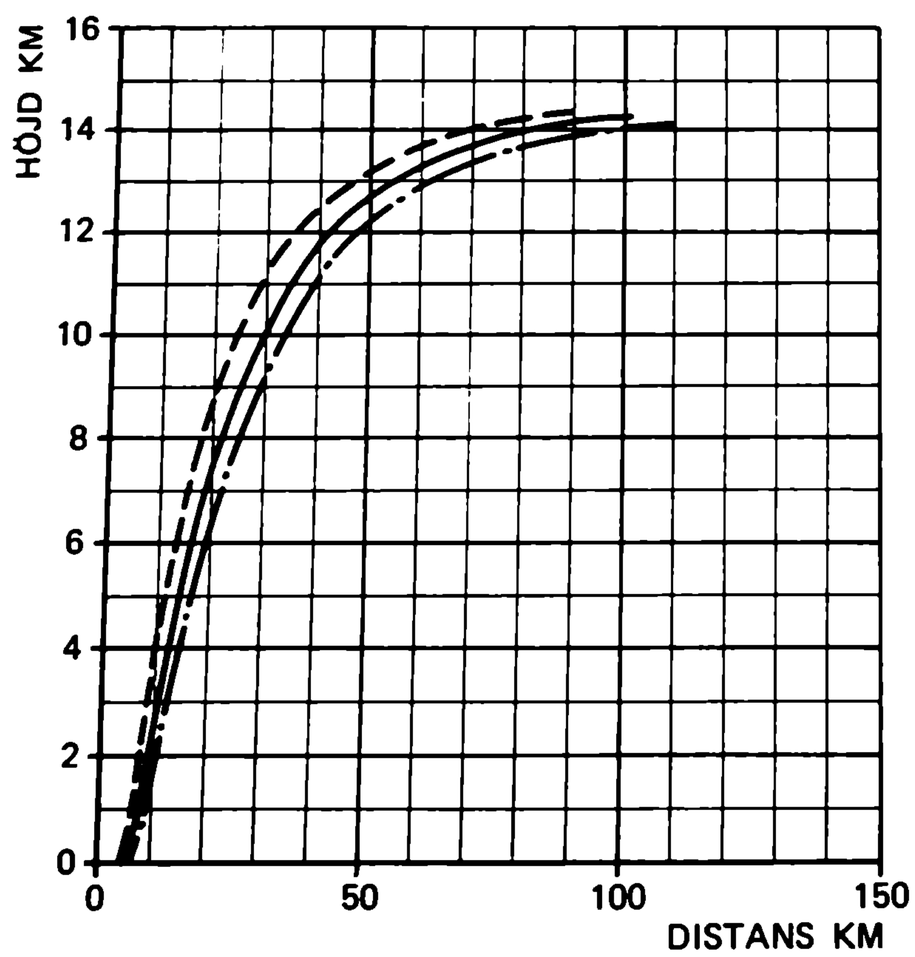

ISA ————
ISA+10 —·—·—
ISA−15 — — — —

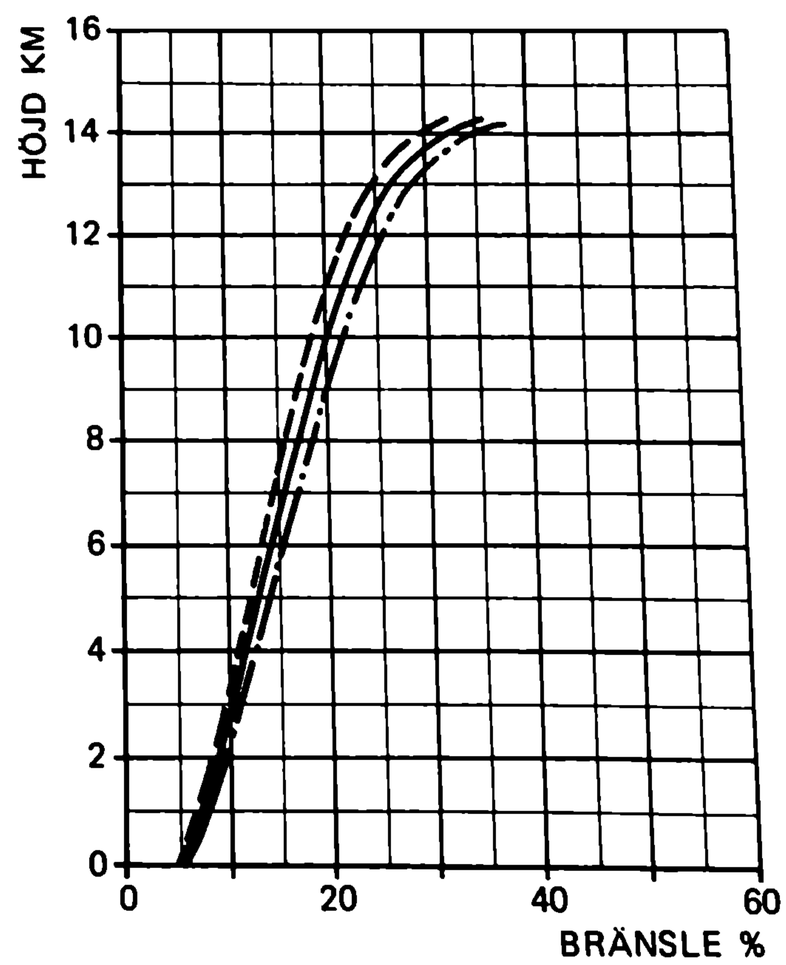
# STIGNING

**LASTALTERNATIV GRUPP 2**
**MAX ZON 3**

**STIGNING MED M = 0,9**
**INKL ACC FRÅN M = 0,55**



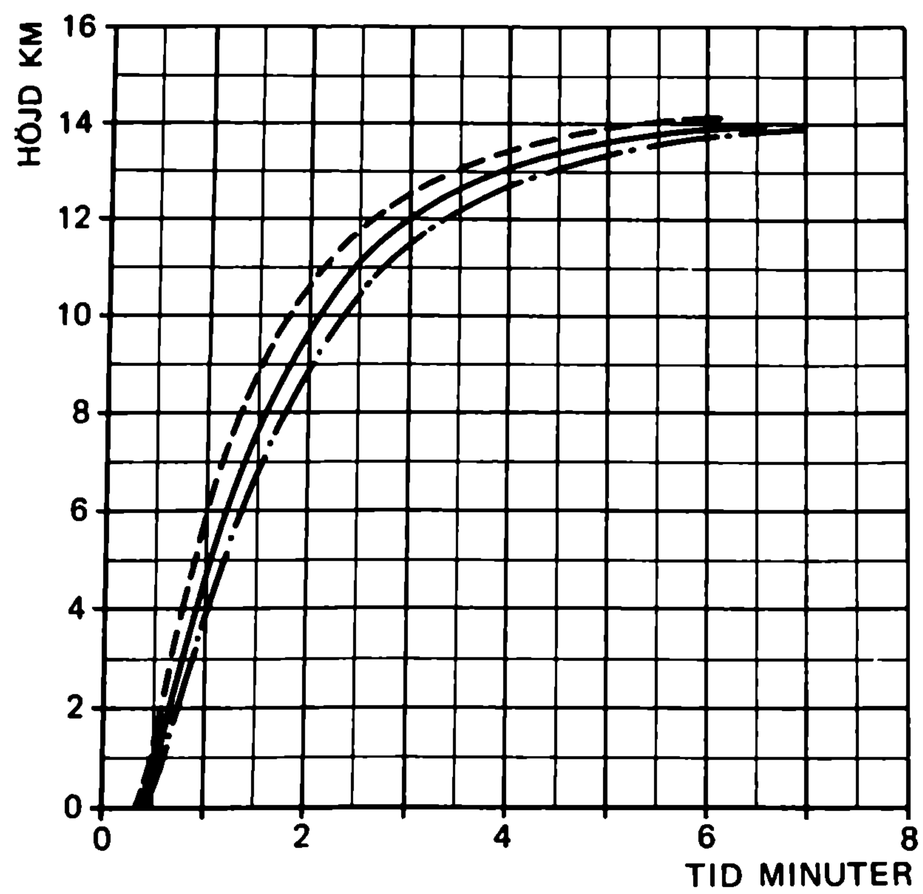



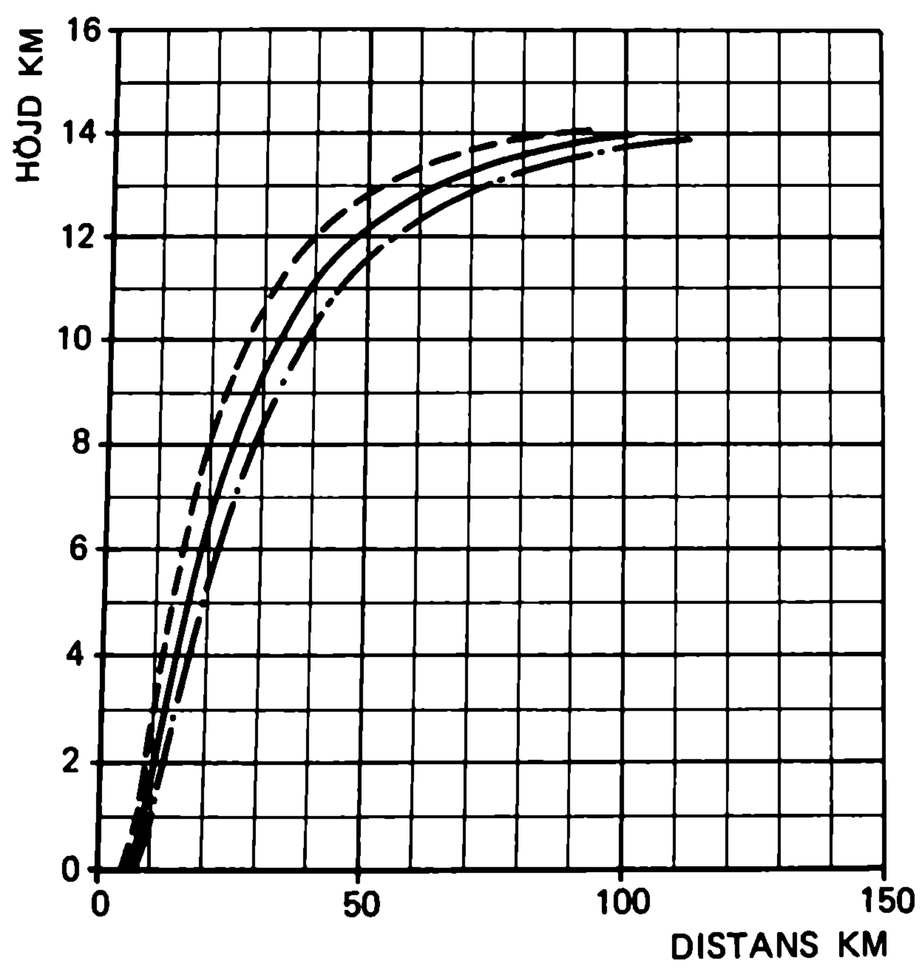

ISA ————
ISA+10 —·—·—
ISA–15 — — —

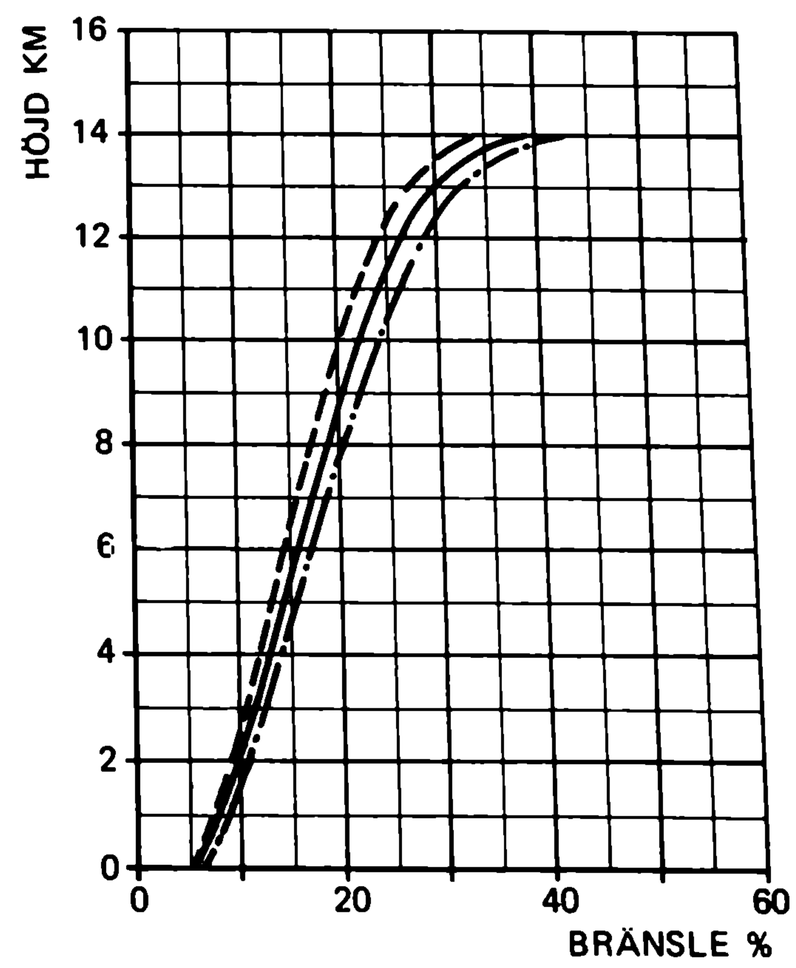
# STIGNING

**LASTALTERNATIV GRUPP 3**
**MAX ZON 3**

**STIGNING MED M = 0,9**
**INKL ACC FRÅN M = 0,55**



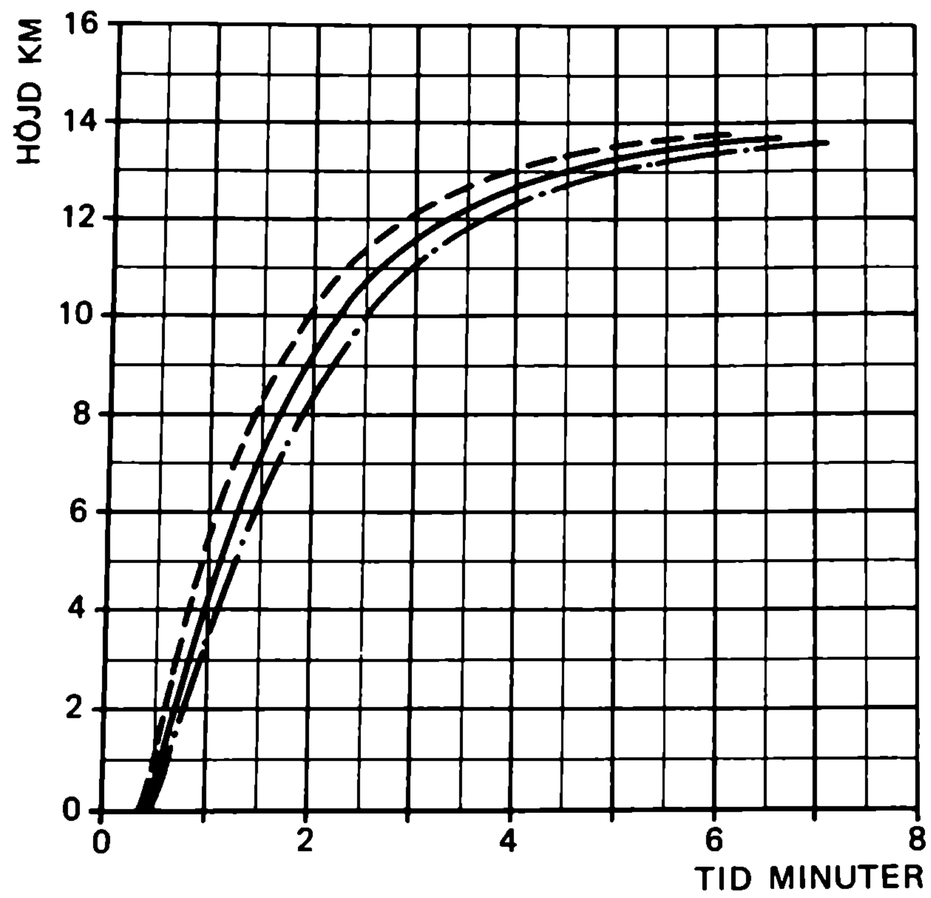



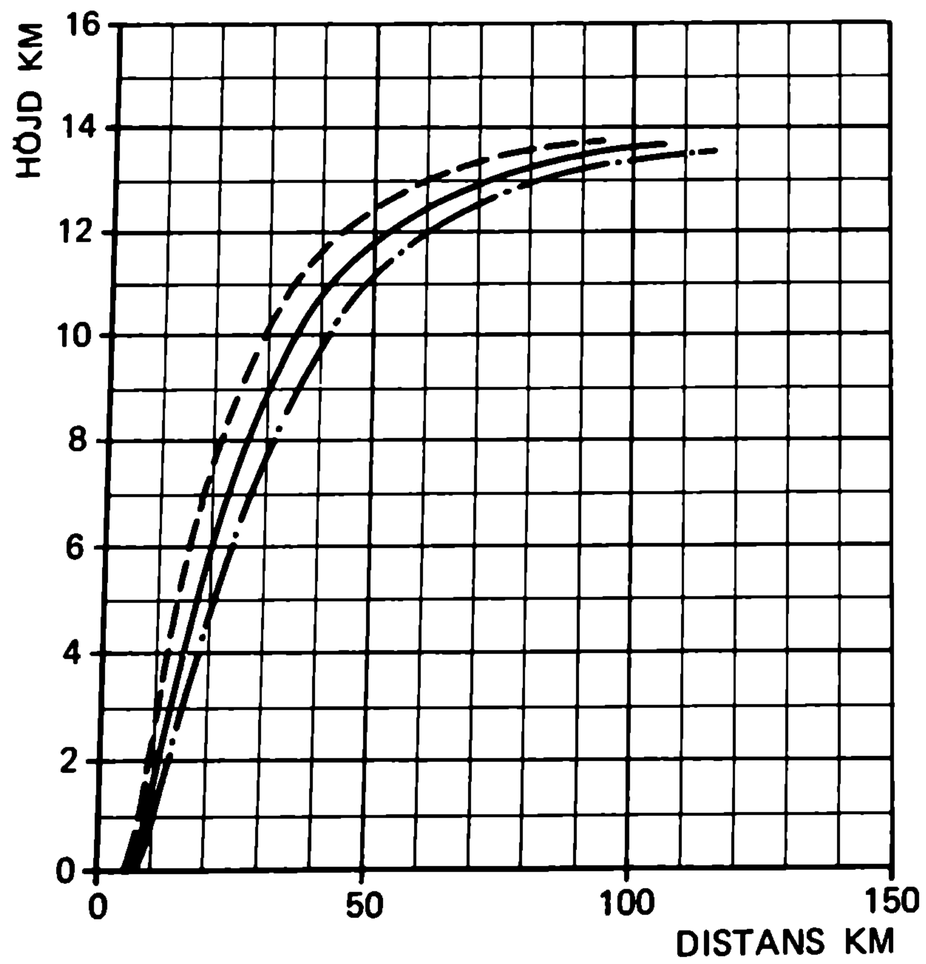

ISA ————
ISA+10 —·—·—
ISA−15 — — —

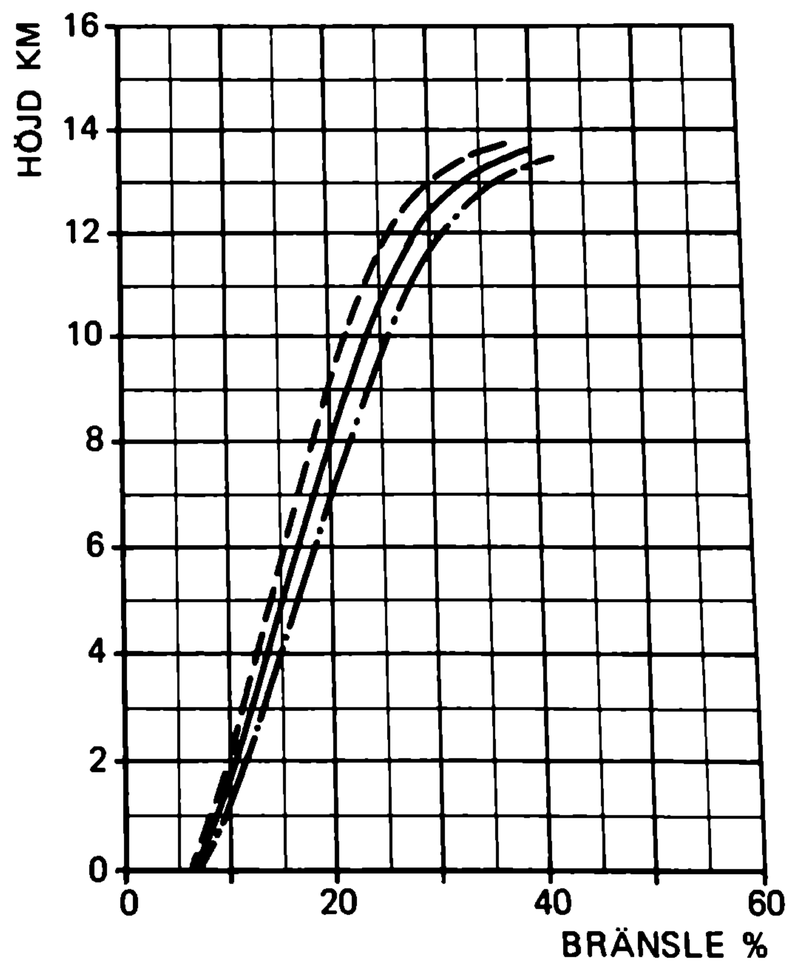
# STIGNING

**LASTALTERNATIV GRUPP 4**
**MAX ZON 3**

**STIGNING MED M = 0,9**
**INKL ACC FRÅN M = 0,55**



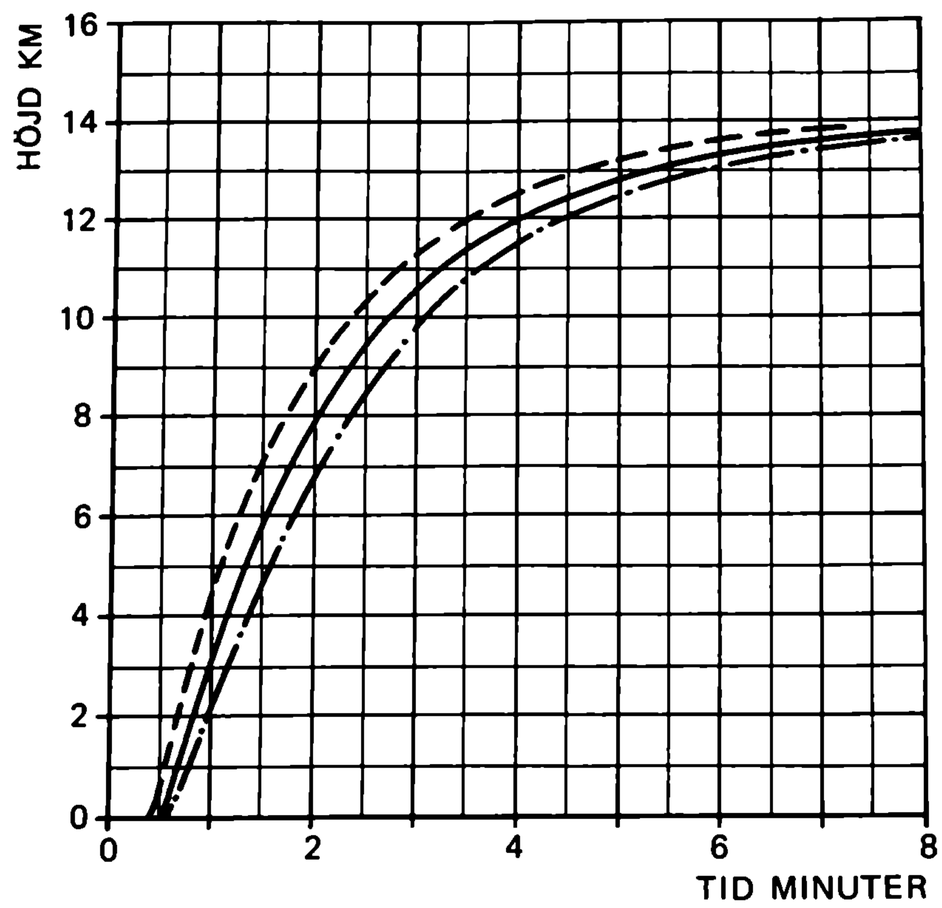



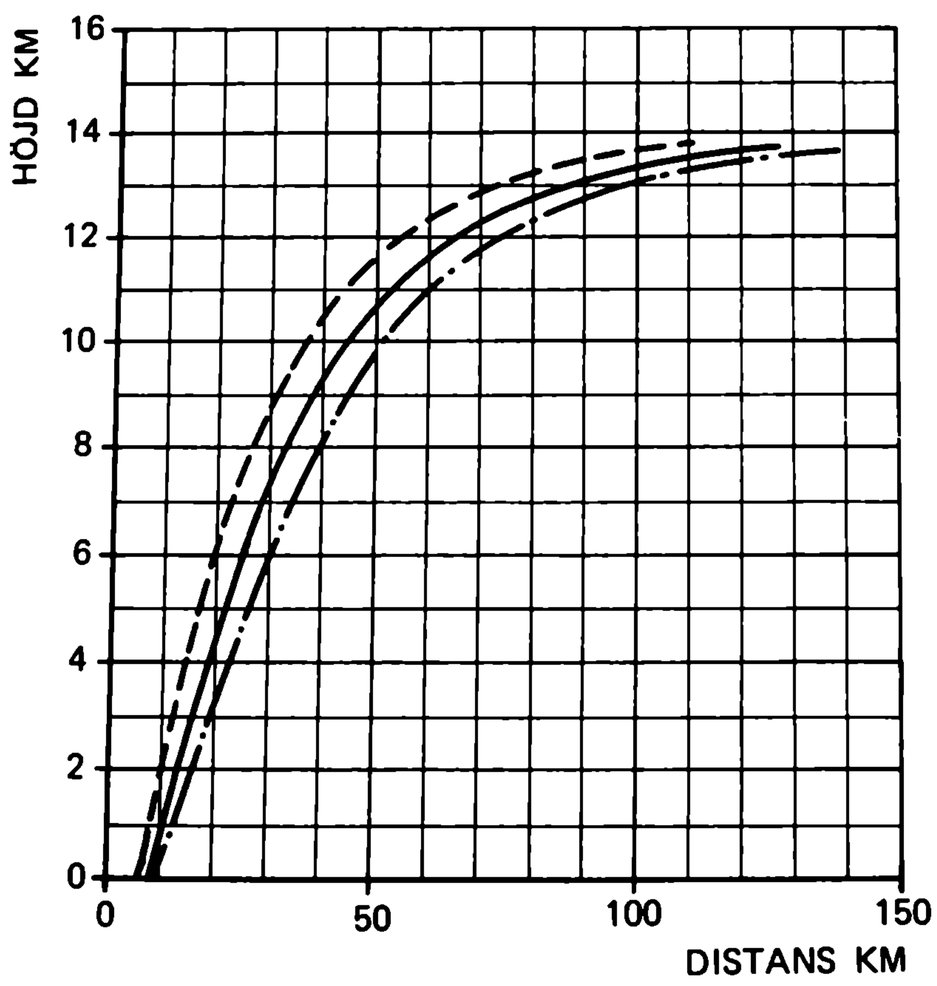

ISA ————
ISA+10 —·—·—
ISA−15 — — —

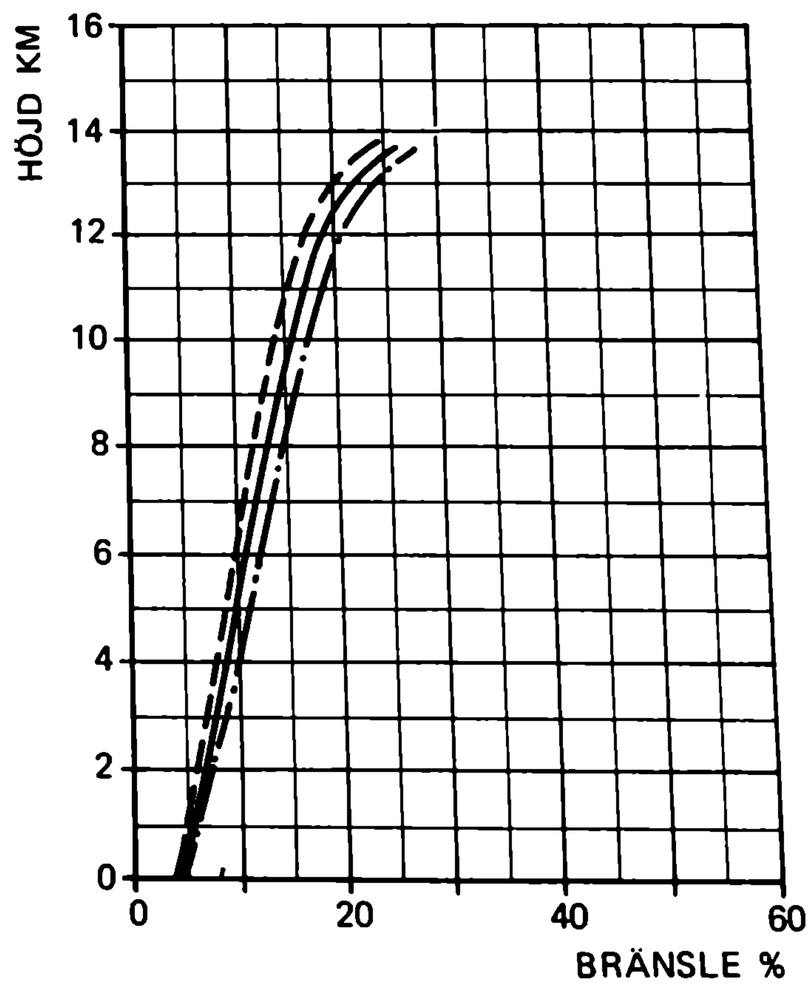
# STIGNING

**RENT FPL**
**MAX ZON 2**

**STIGNING MED M = 0,9**
**INKL ACC FRÅN M = 0,55**



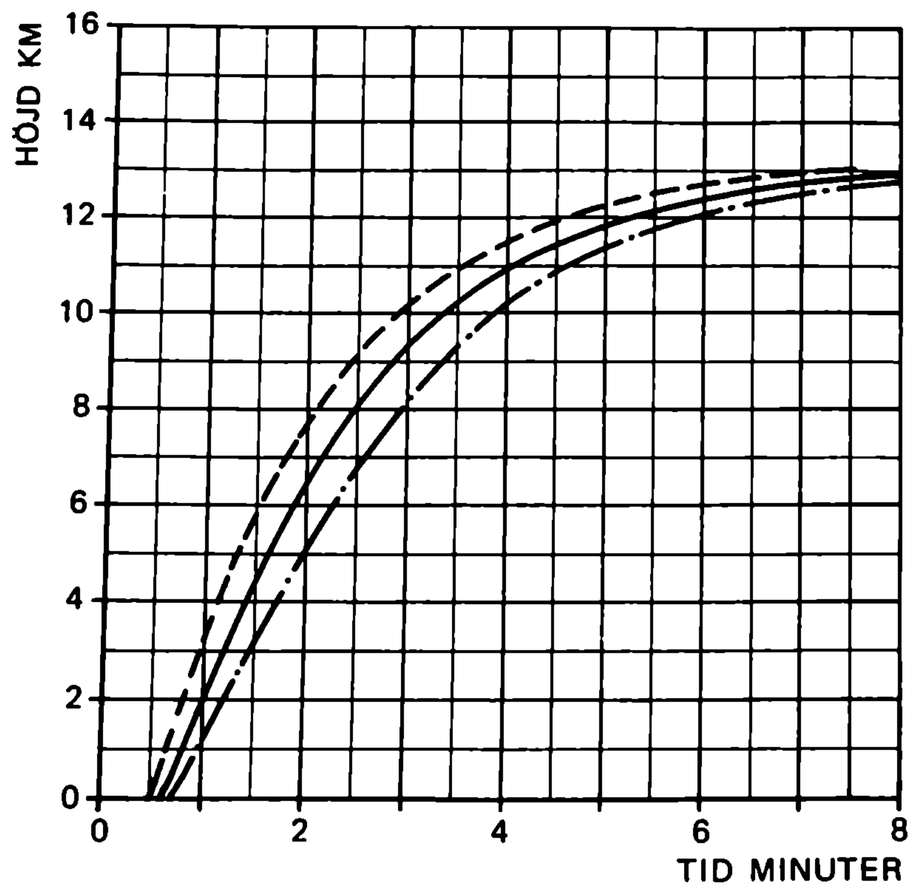



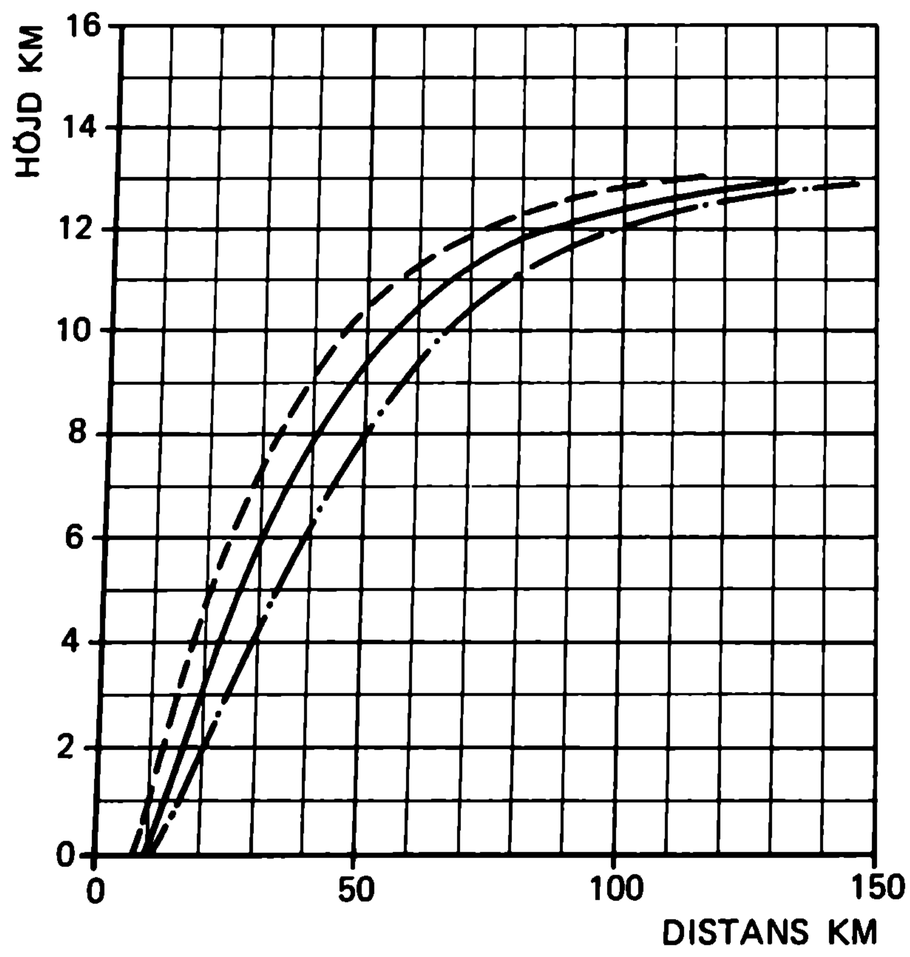

ISA ———
ISA+10 —·—·—
ISA−15 — — —

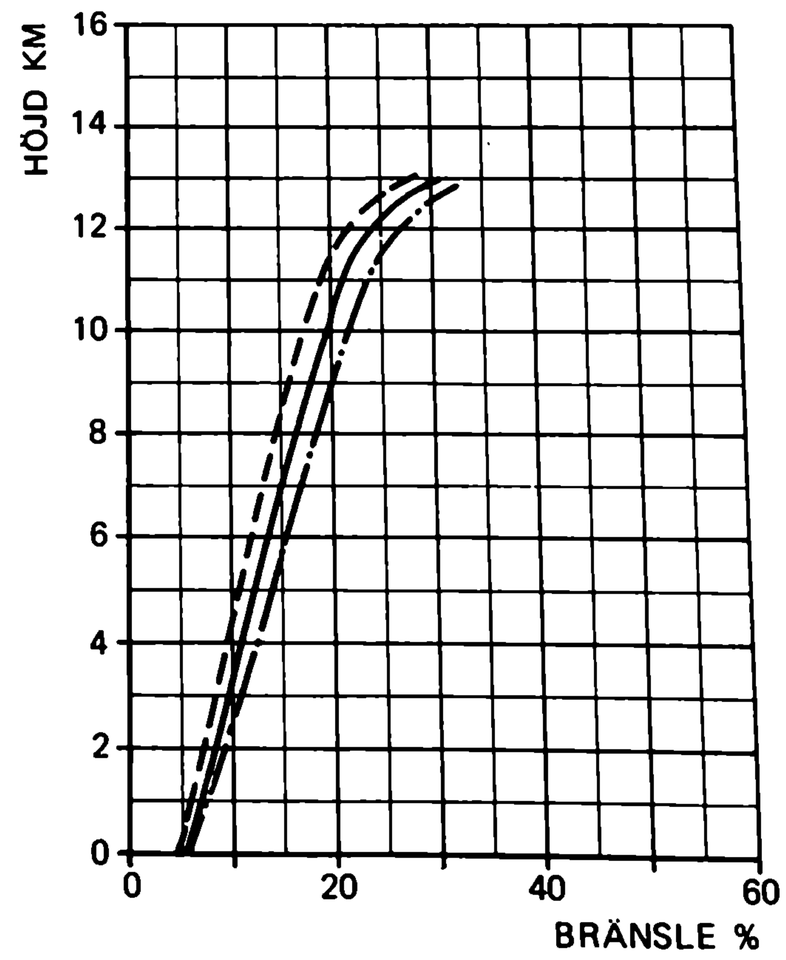
# STIGNING

**LASTALTERNATIV GRUPP 1**
**MAX ZON 2**

**STIGNING MED M = 0,9**
**INKL ACC FRÅN M = 0,55**



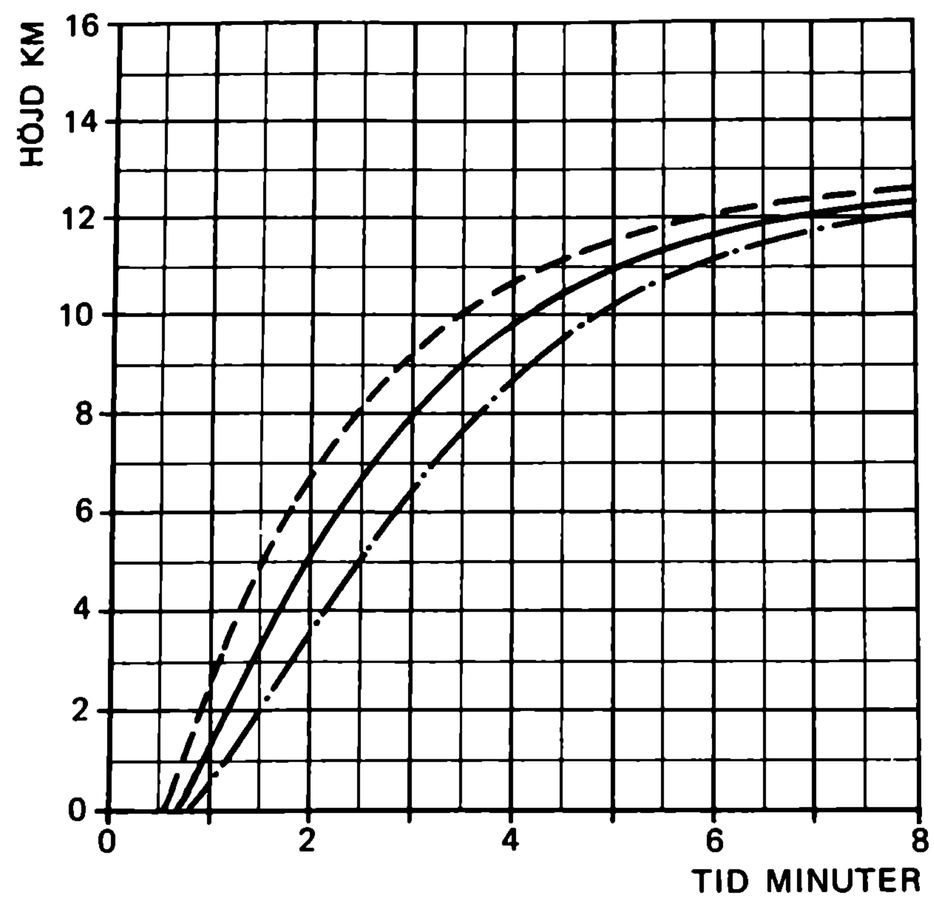



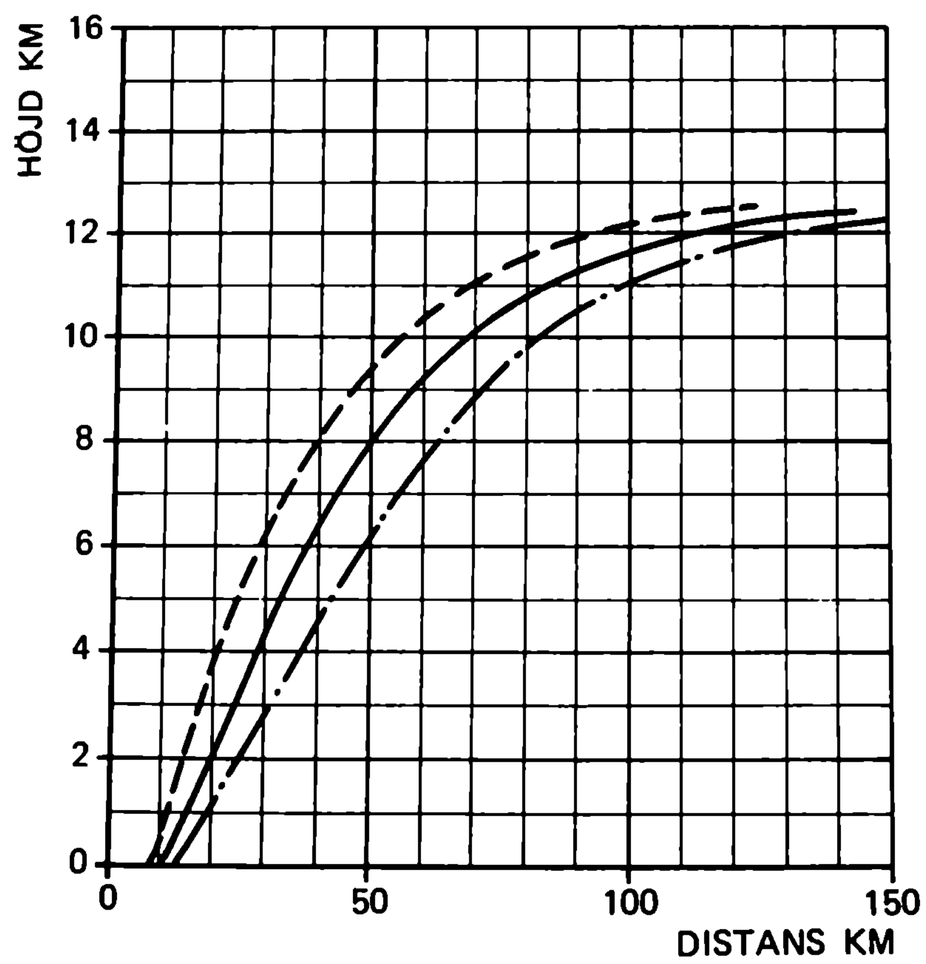

ISA ———
ISA+10 —·—·—
ISA−15 — — —

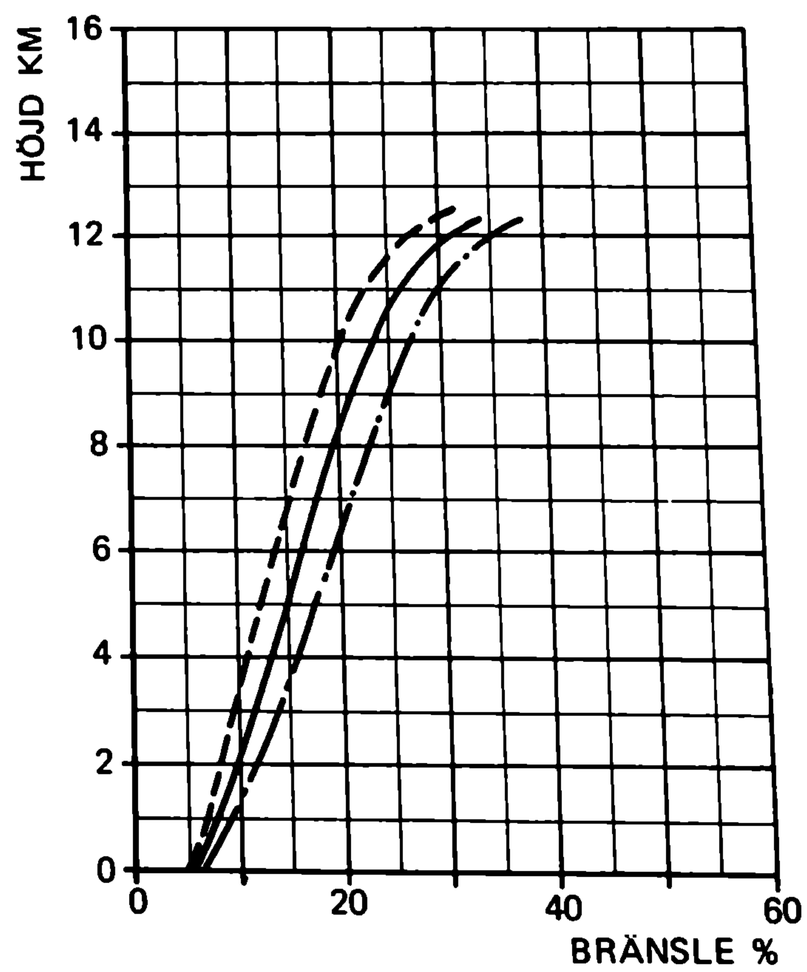
# STIGNING

**LASTALTERNATIV GRUPP 2**
**MAX ZON 2**

STIGNING MED M = 0,9
INKL ACC FRÅN M = 0,55



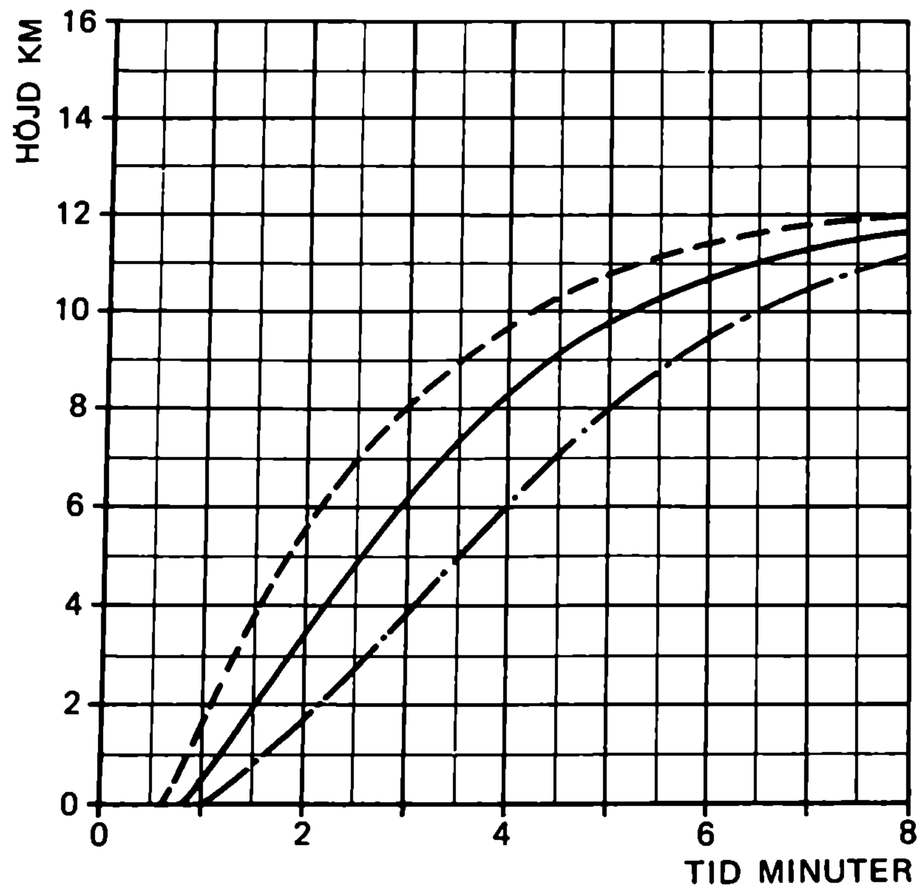



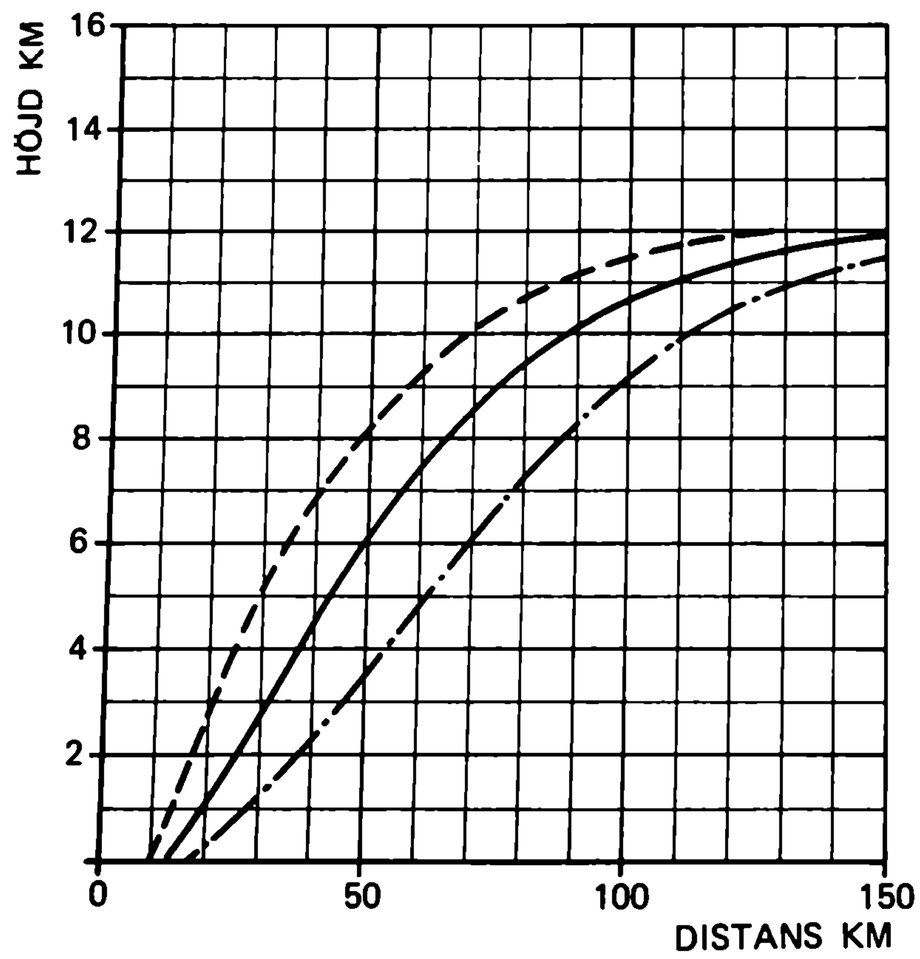

ISA ————
ISA+10 —·—·—
ISA−15 — — —

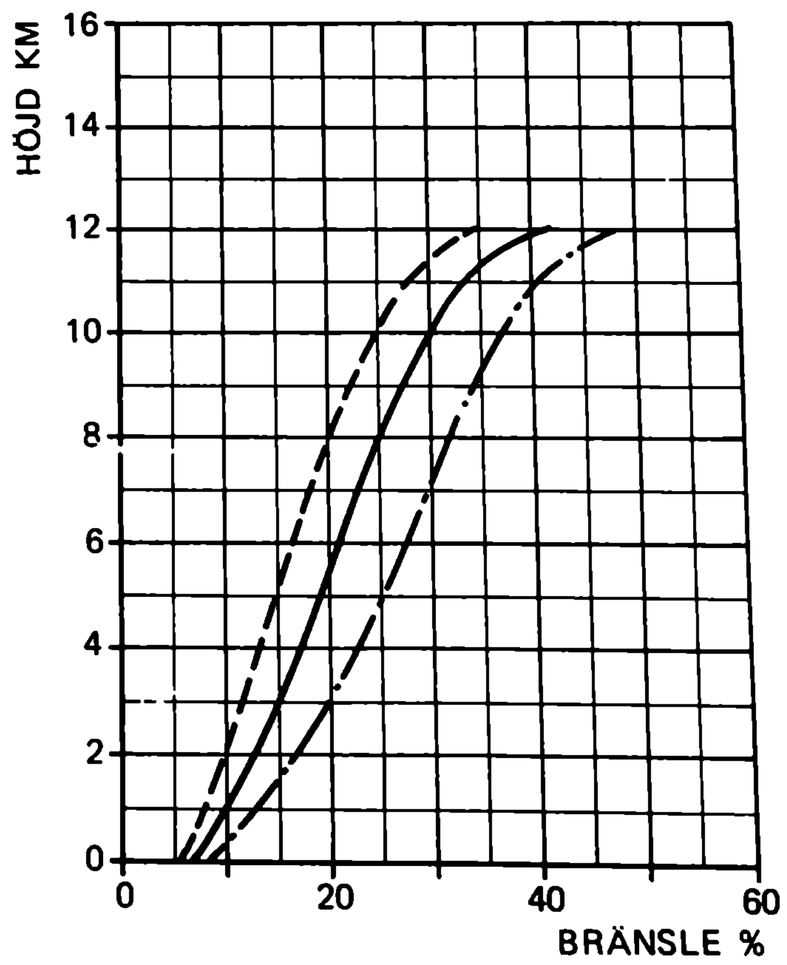
# STIGNING

**LASTALTERNATIV GRUPP 3**
**MAX ZON 2**

**STIGNING MED M = 0,9**
**INKL ACC FRÅN M = 0,55**



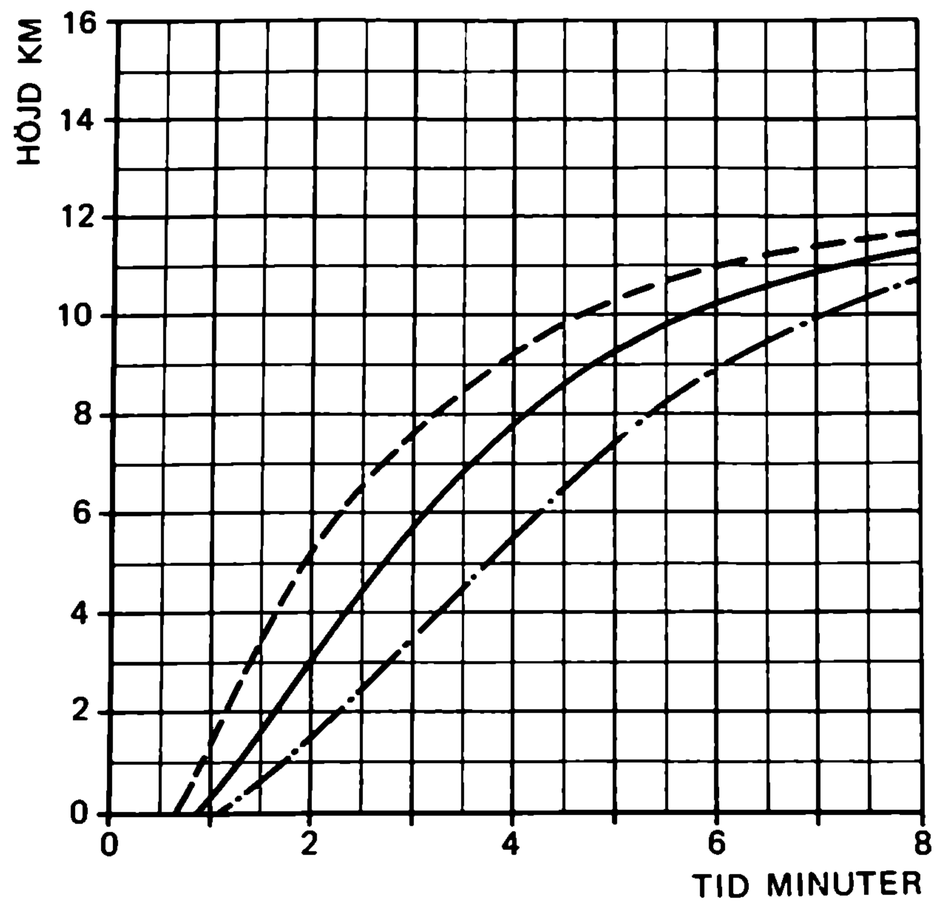



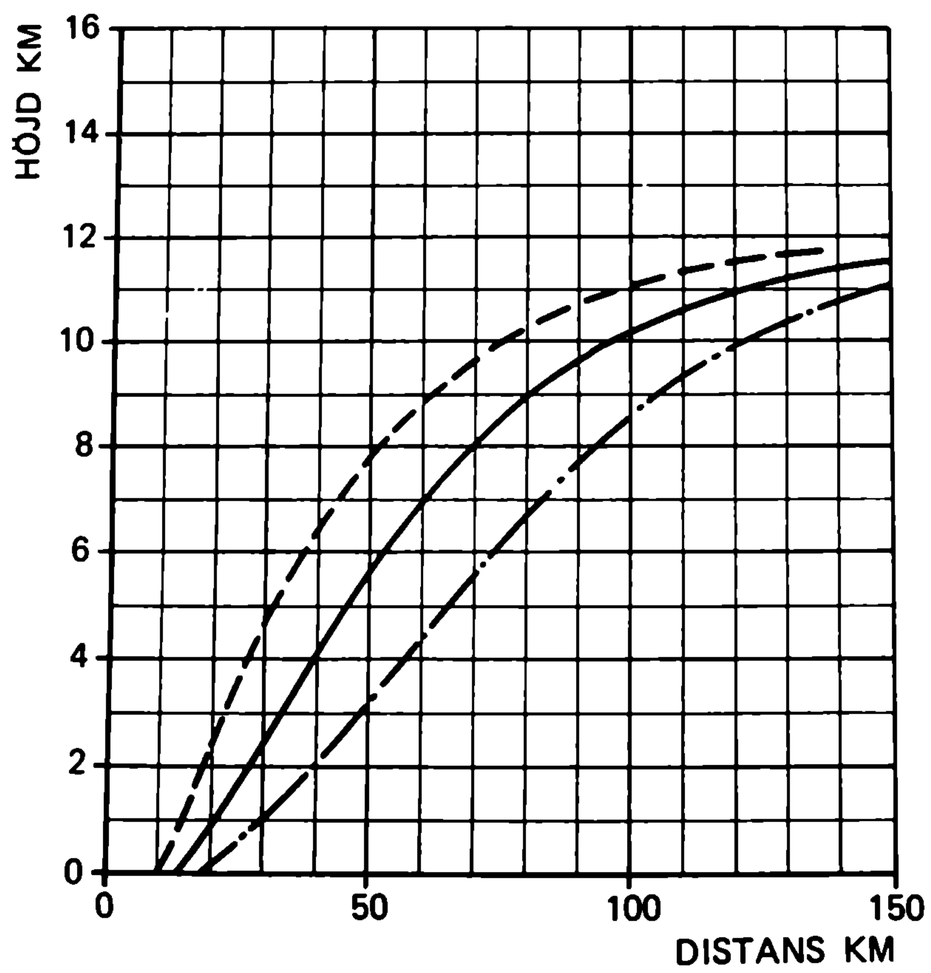

ISA
ISA+10
ISA–15

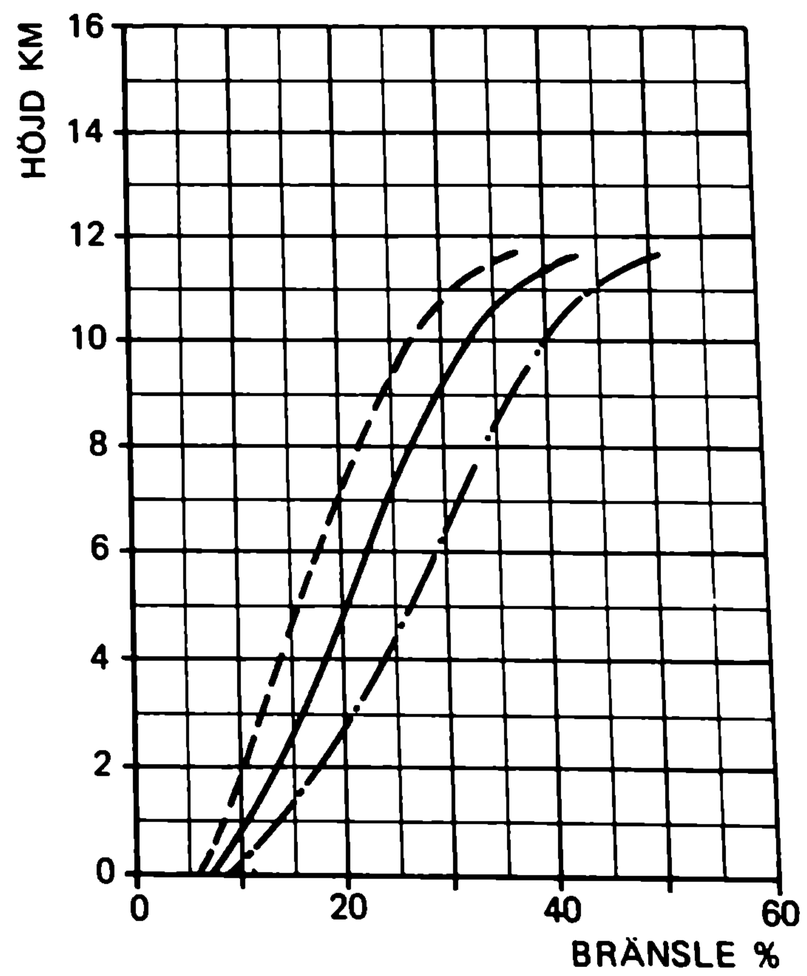
# STIGNING

**LASTALTERNATIV GRUPP 4**
**MAX ZON 2**

STIGNING MED M = 0,9
INKL ACC FRÅN M = 0,55



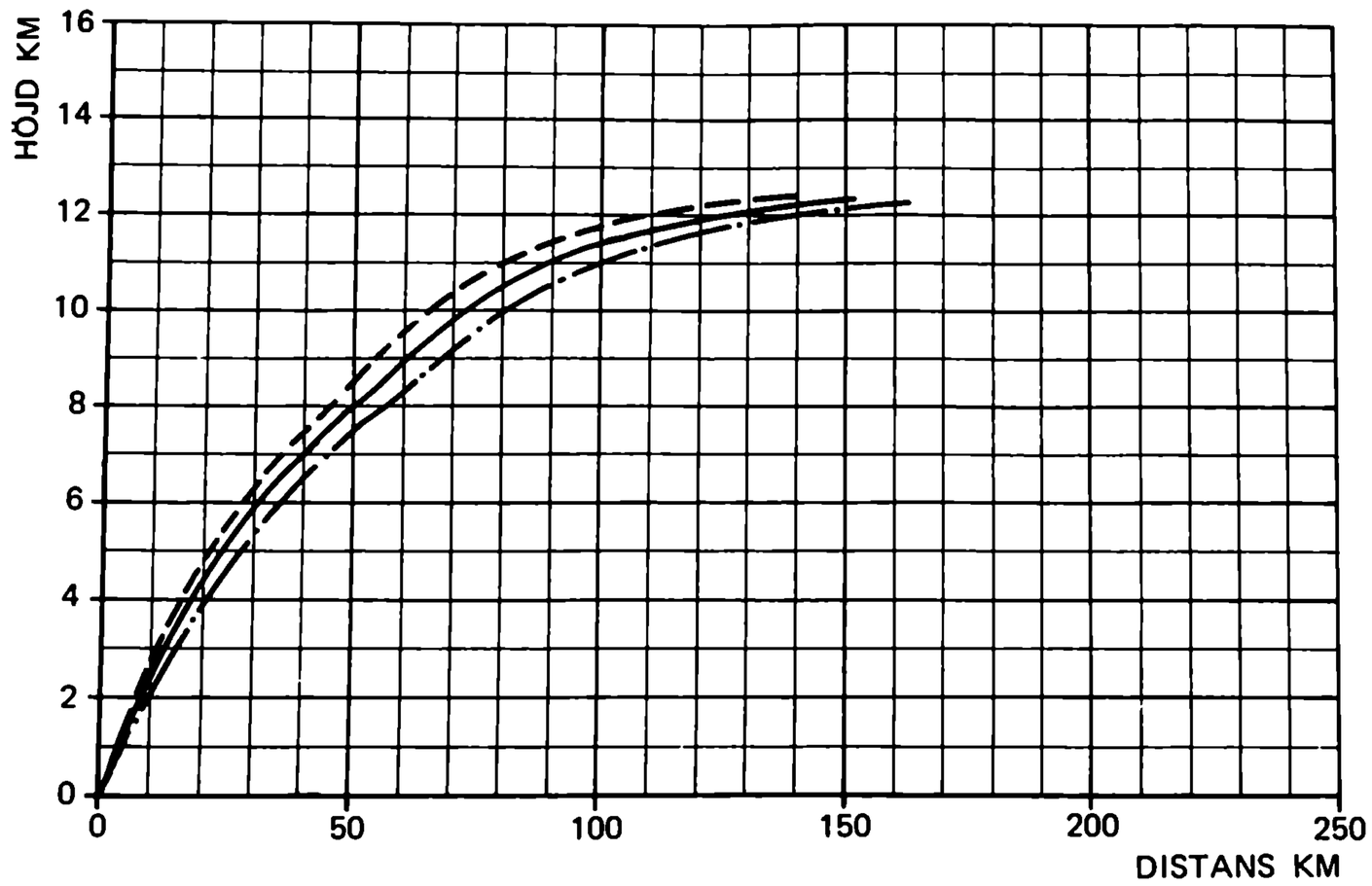



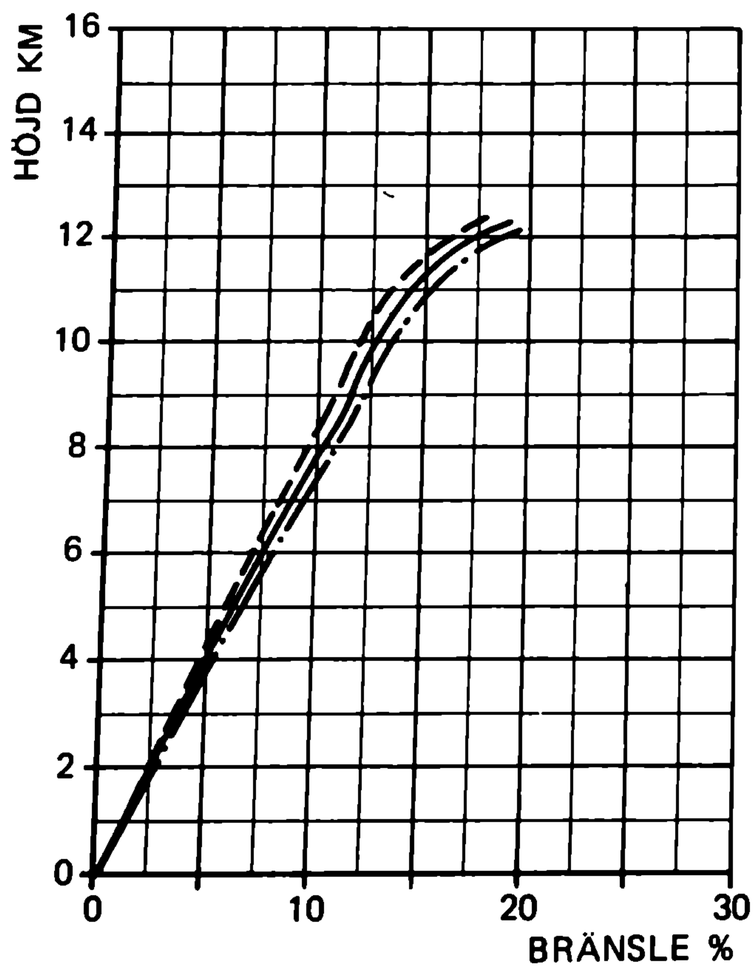

ISA ————
ISA+10 —·—·—
ISA−15 — — — —

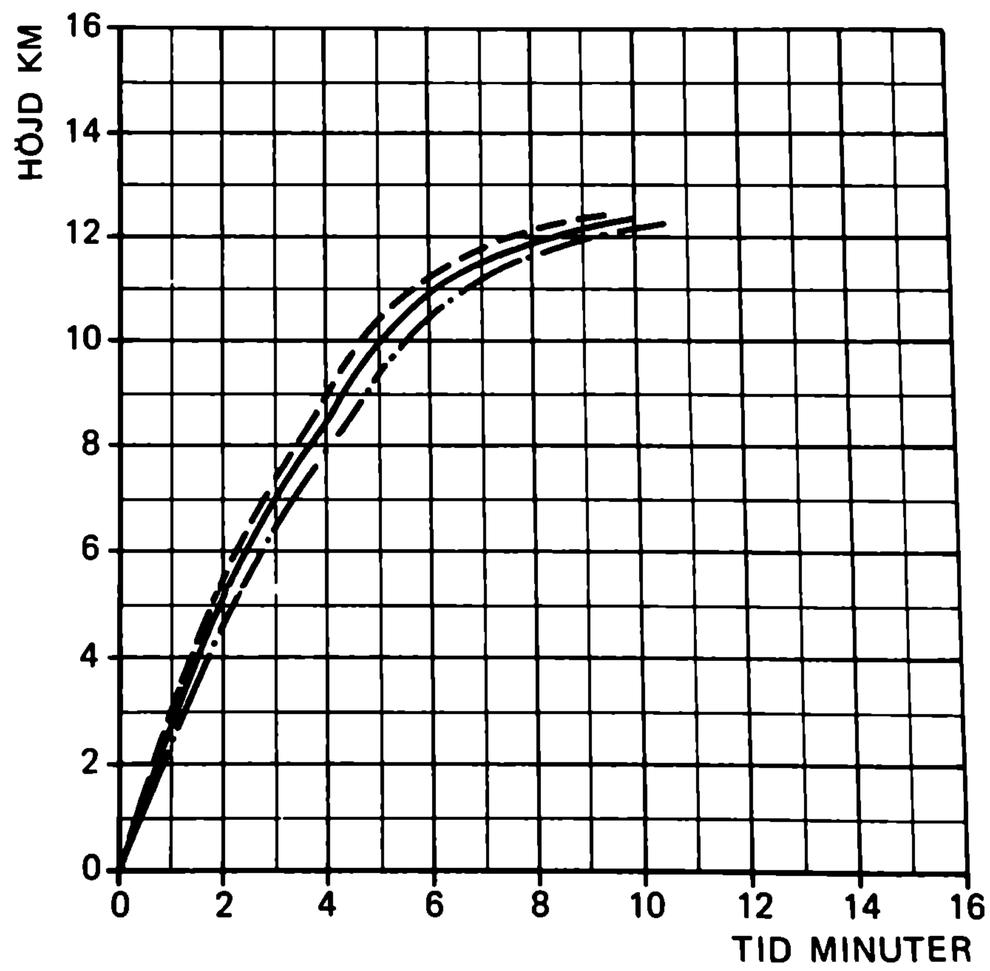
# STIGNING

**RENT FPL**
**MAX ZON 1**

**STIGNING MED $V_i$ = 675**
**TILL M = 0,90**



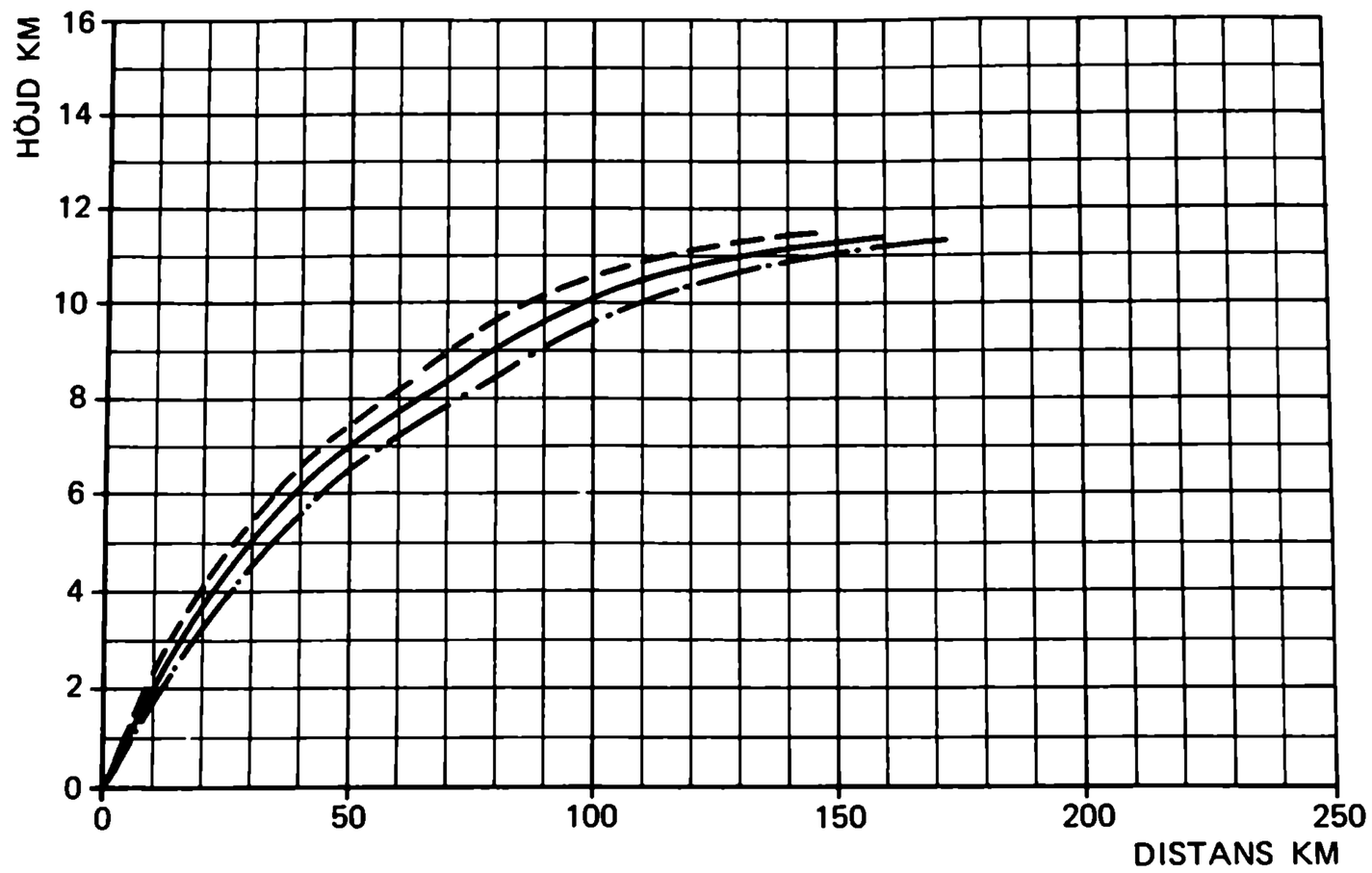



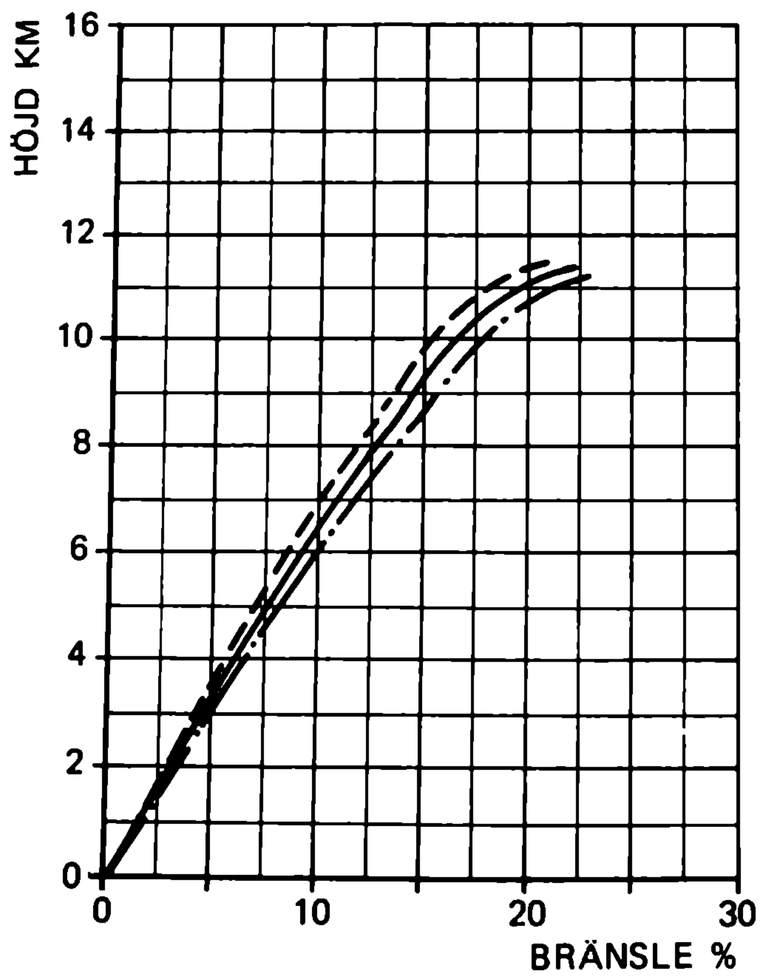

ISA ————
ISA+10 —·—·—
ISA–15 — — — —

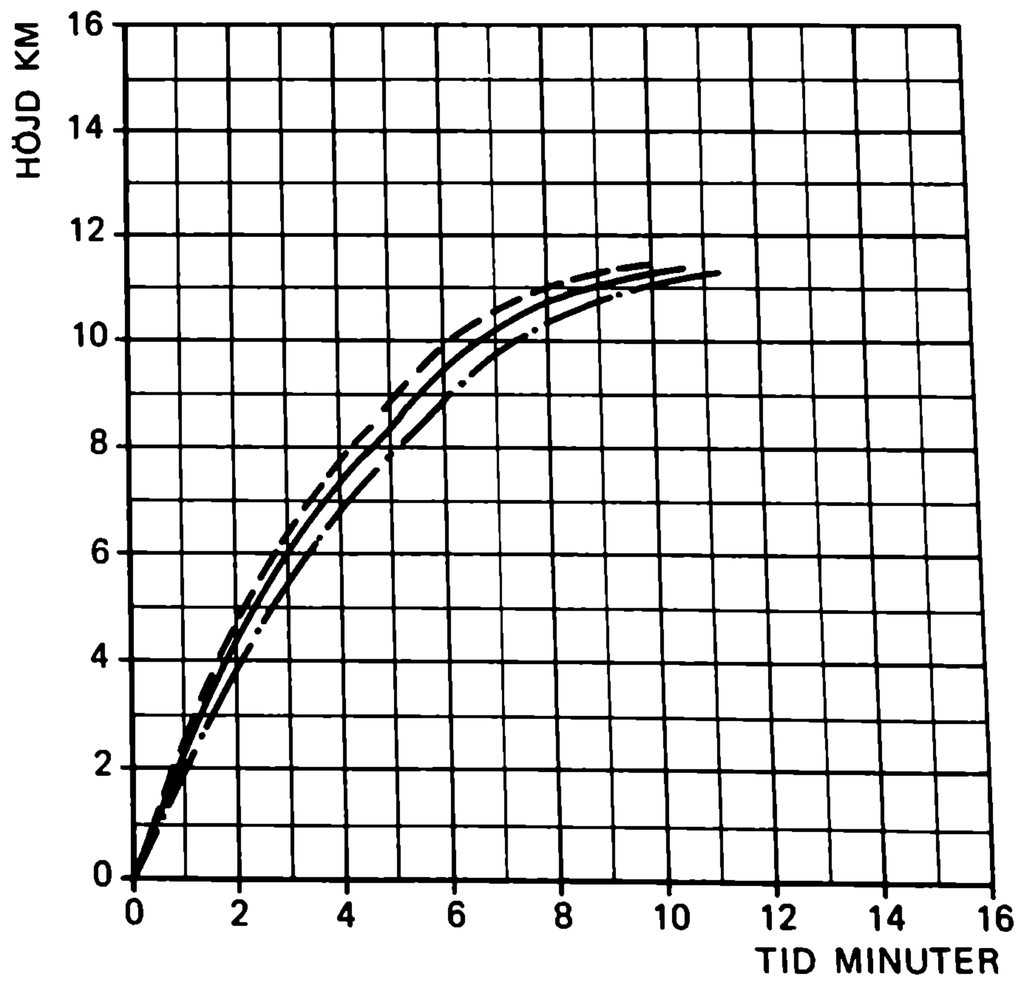
# STIGNING

**LASTALTERNATIV GRUPP 1**
**MAX ZON 1**

**STIGNING MED $V_i$ = 675**
**TILL M = 0,90**



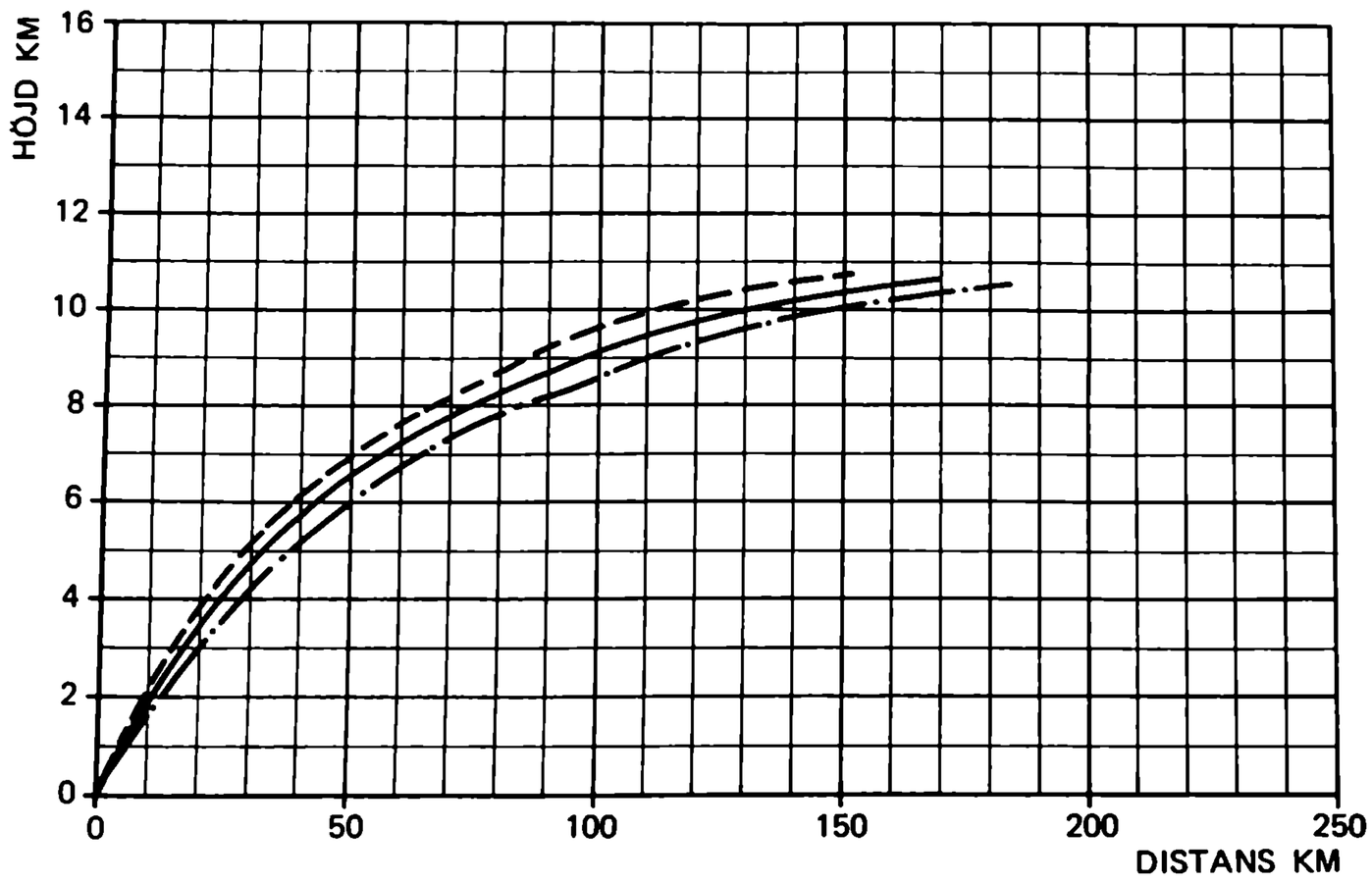



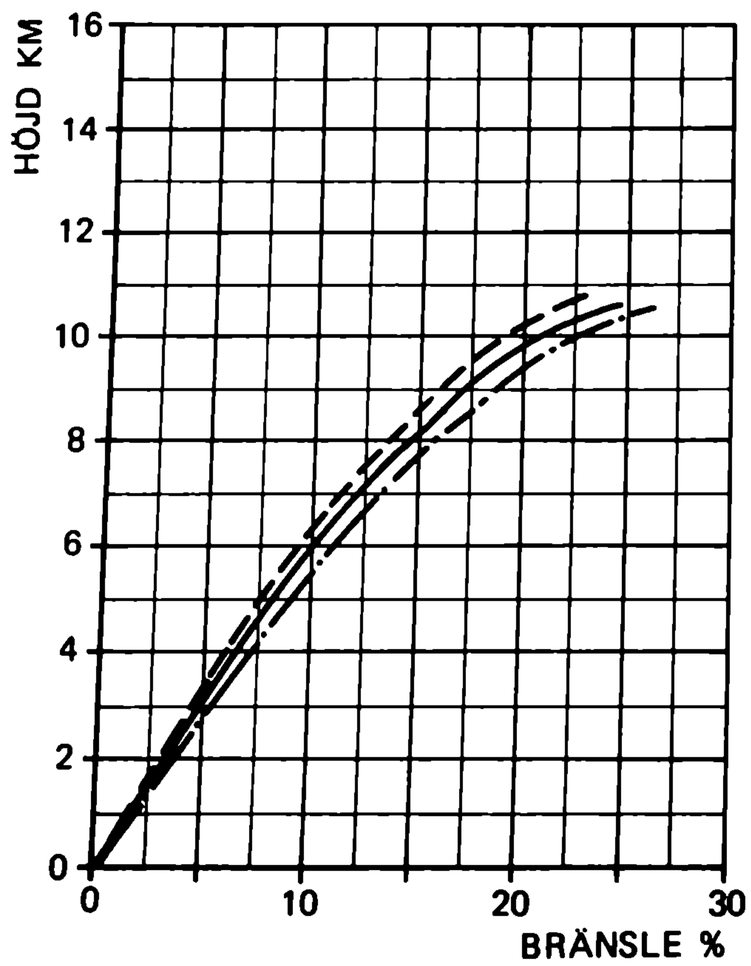

ISA ————
ISA+10 —·—·—
ISA–15 — — — —

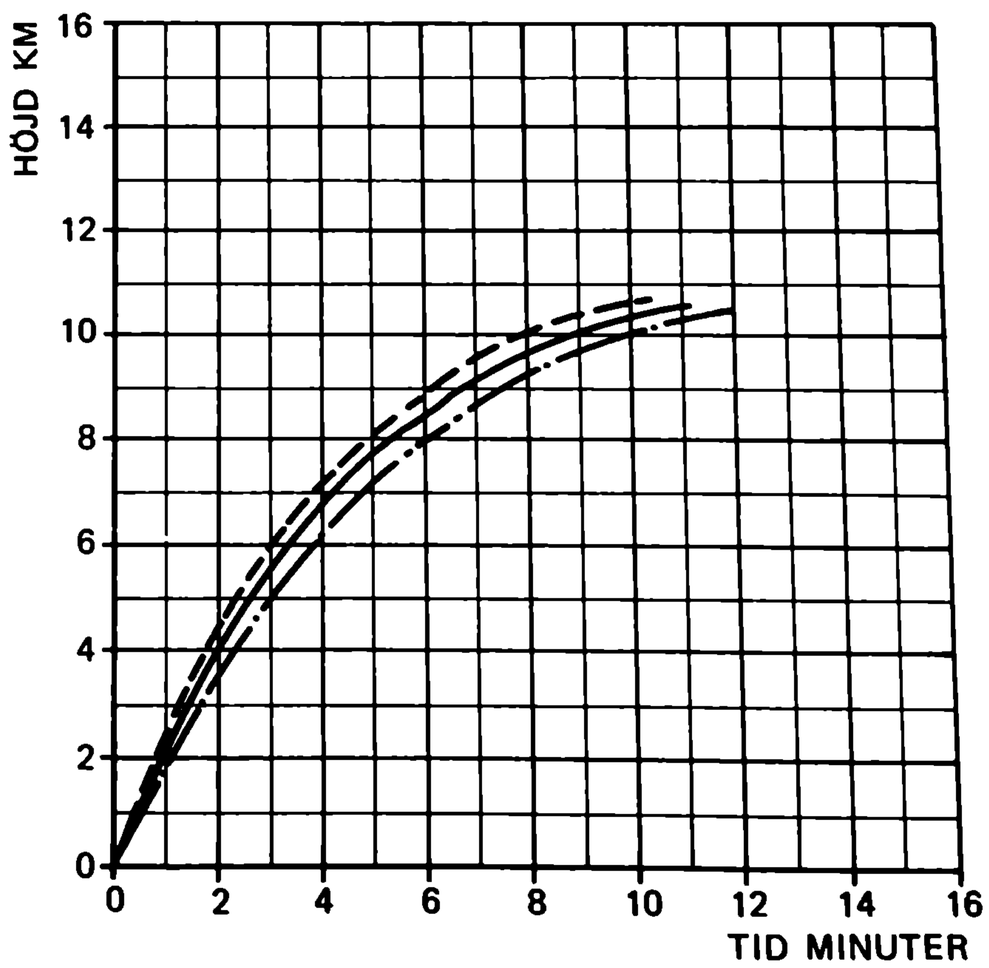
# STIGNING

**LASTALTERNATIV GRUPP 2**
**MAX ZON 1**

**STIGNING MED $V_i$ = 675**
**TILL M = 0,90**



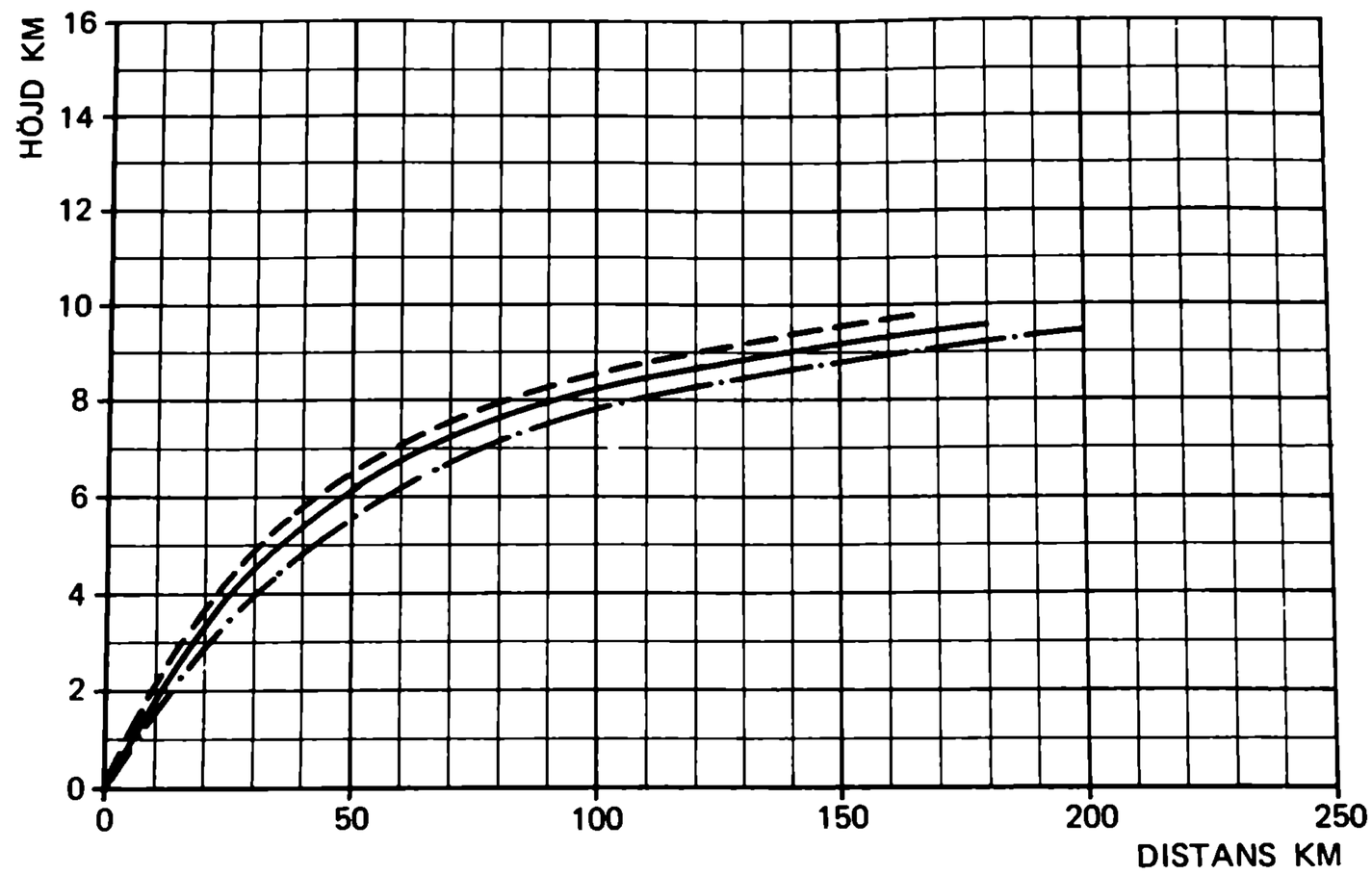



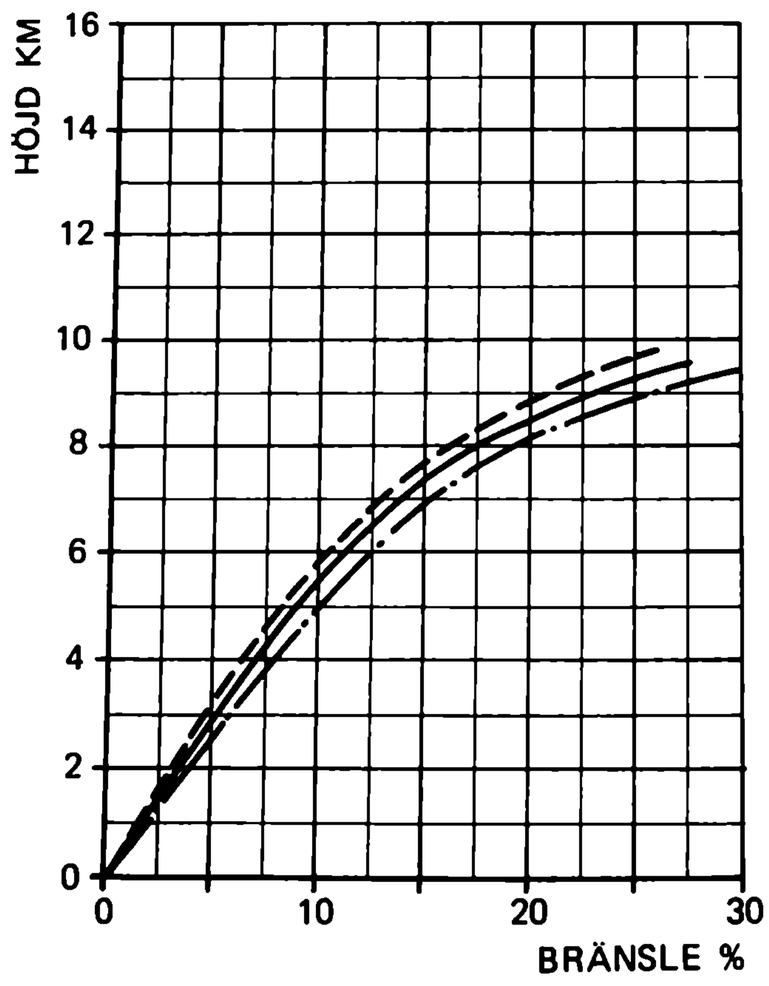

ISA ————
ISA+10 —·—·—
ISA−15 — — — —

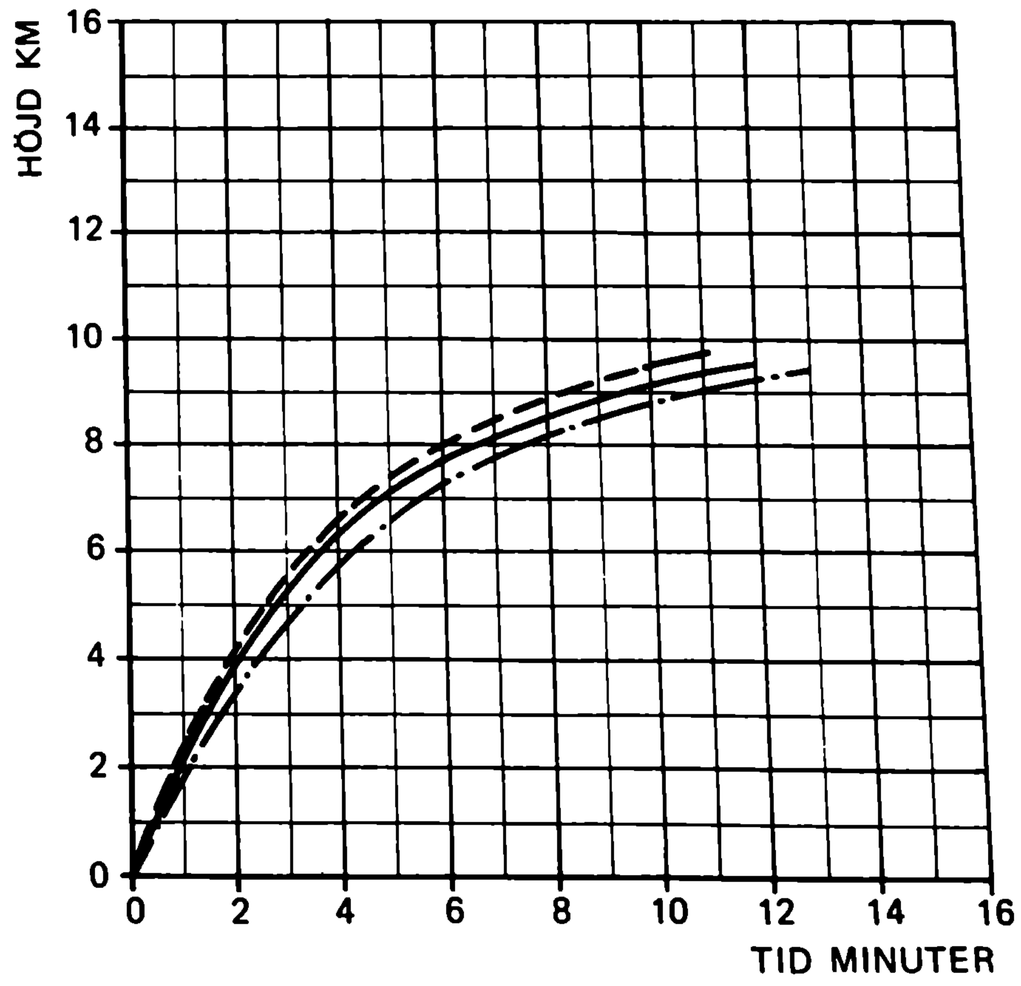
# STIGNING

**LASTALTERNATIV GRUPP 3**
**MAX ZON 1**

**STIGNING MED $V_i$ = 675**
**TILL M = 0,90**



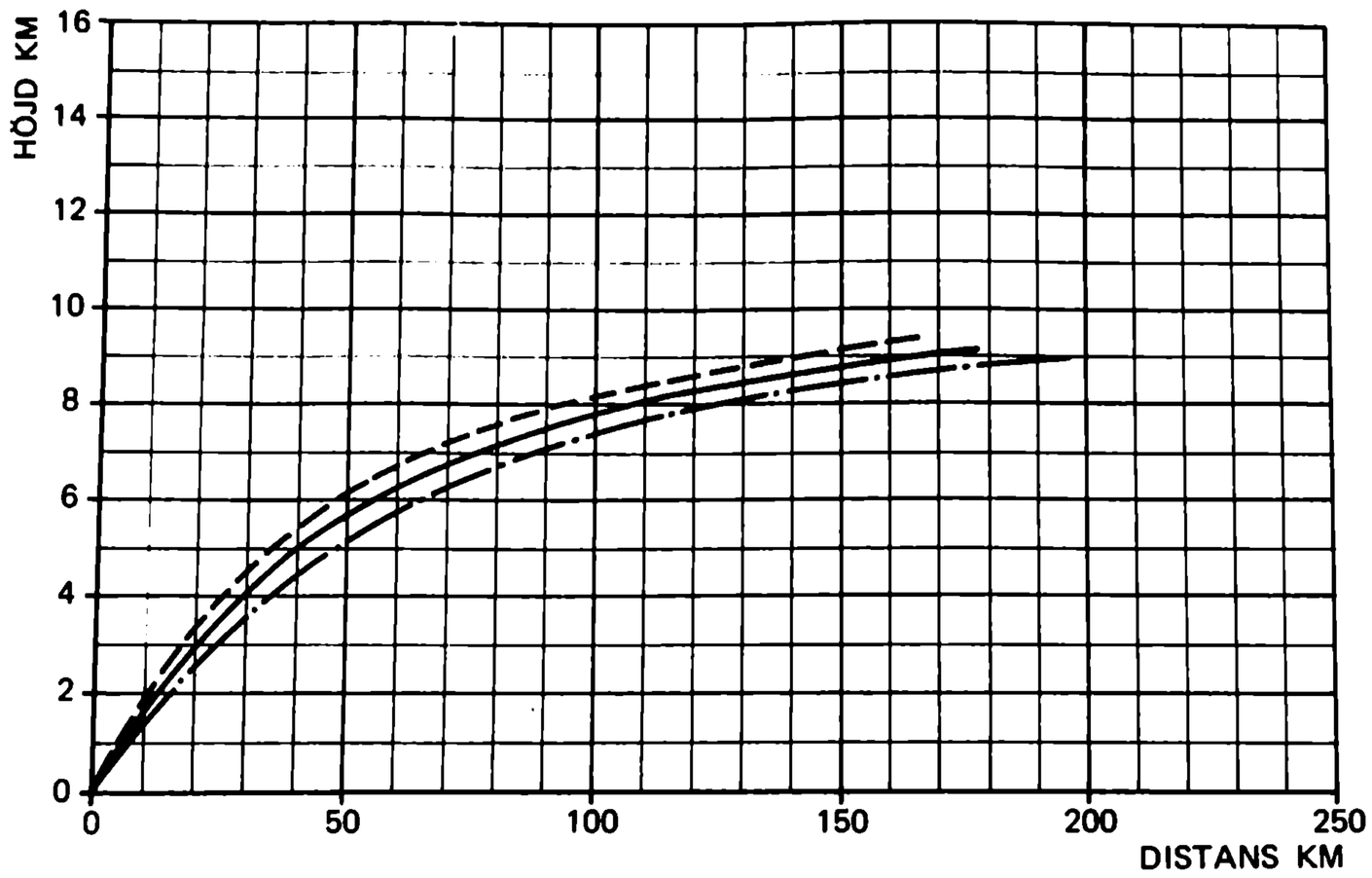



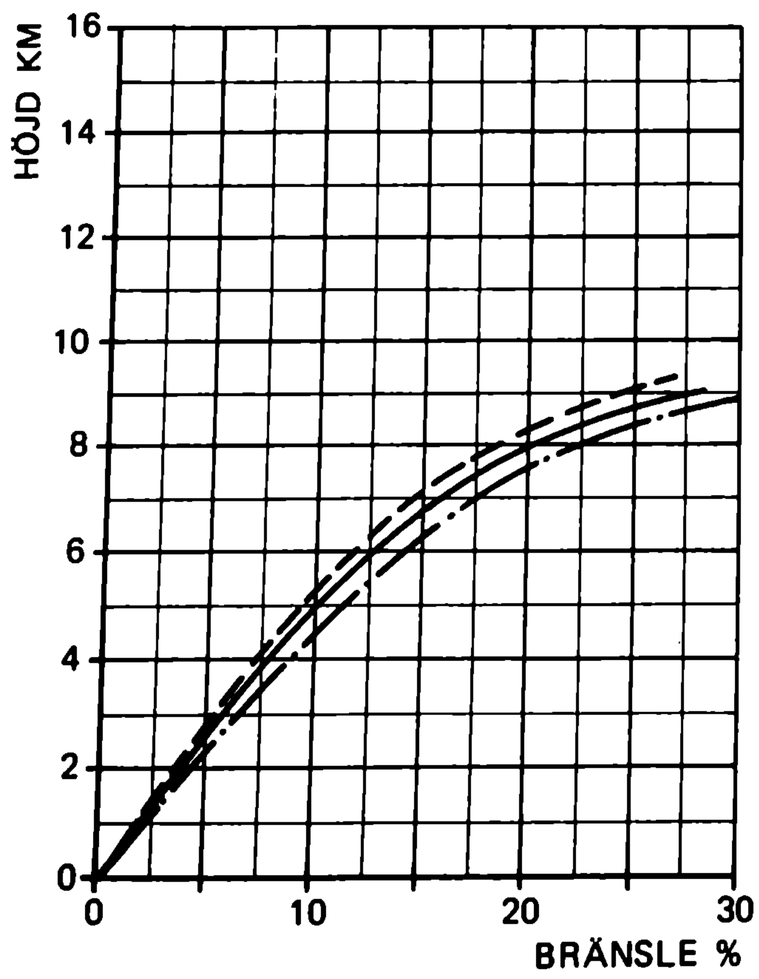

ISA ————
ISA+10 —·—·—
ISA−15 — — —

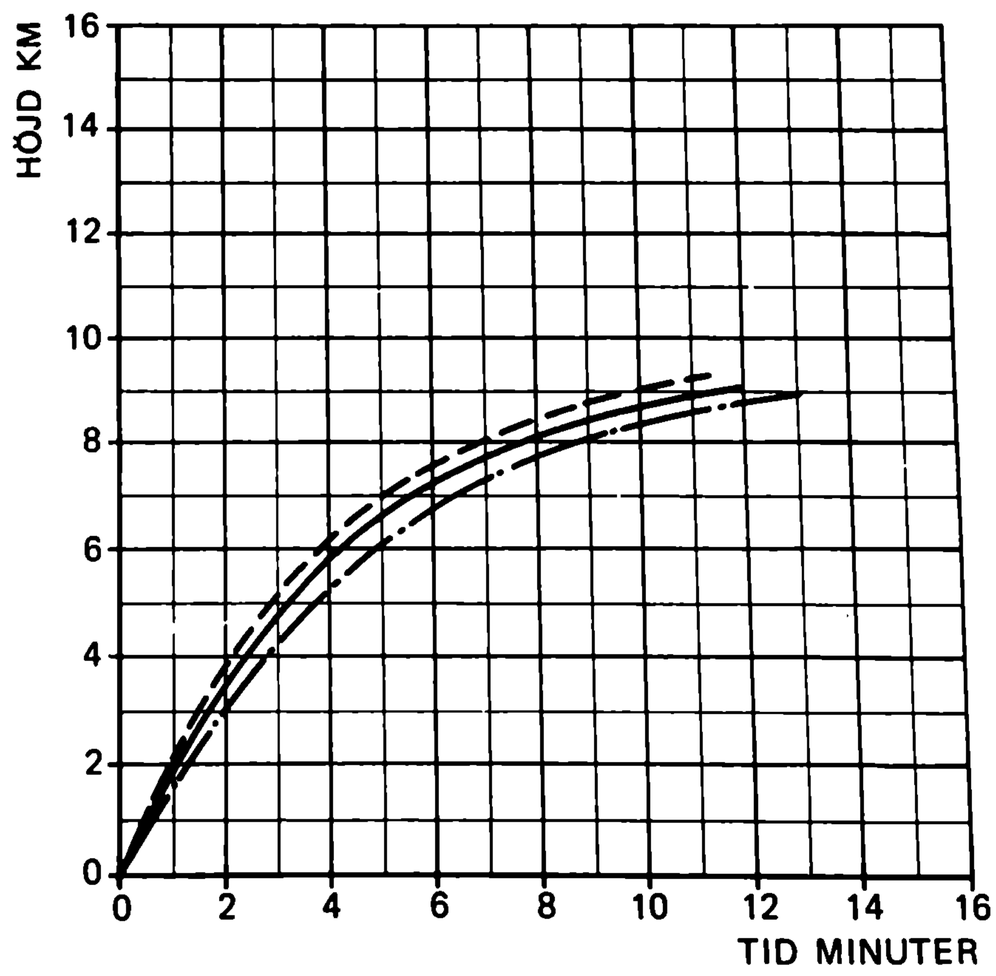
# STIGNING

**LASTALTERNATIV GRUPP 4**
**MAX ZON 1**

**STIGNING MED $V_I$ = 675**
**TILL M = 0,90**



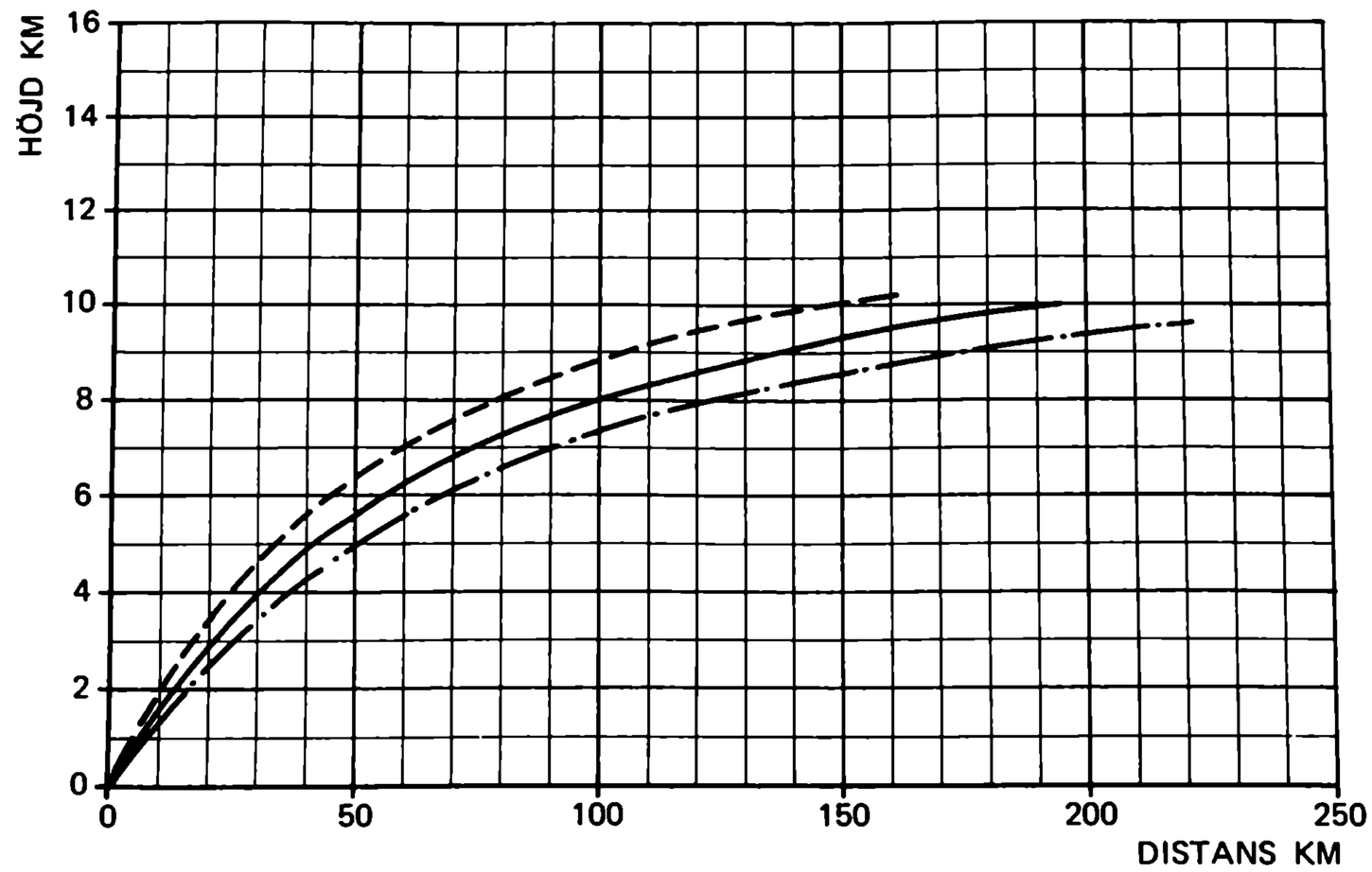



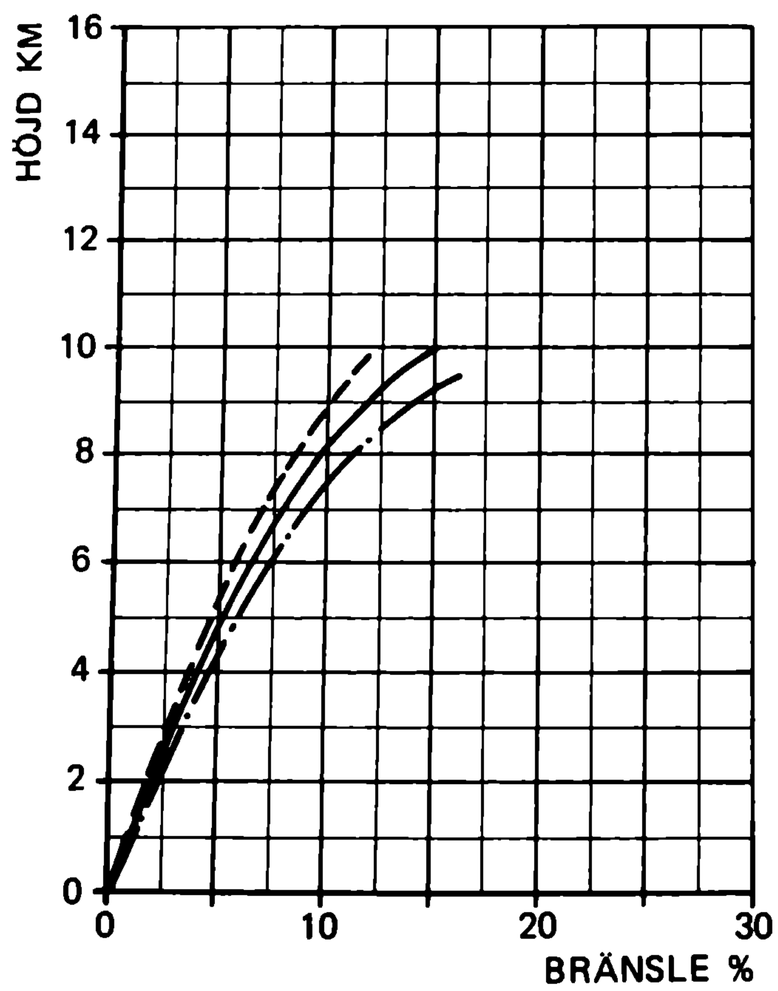

ISA ————
ISA+10 —·—·—
ISA−15 — — —

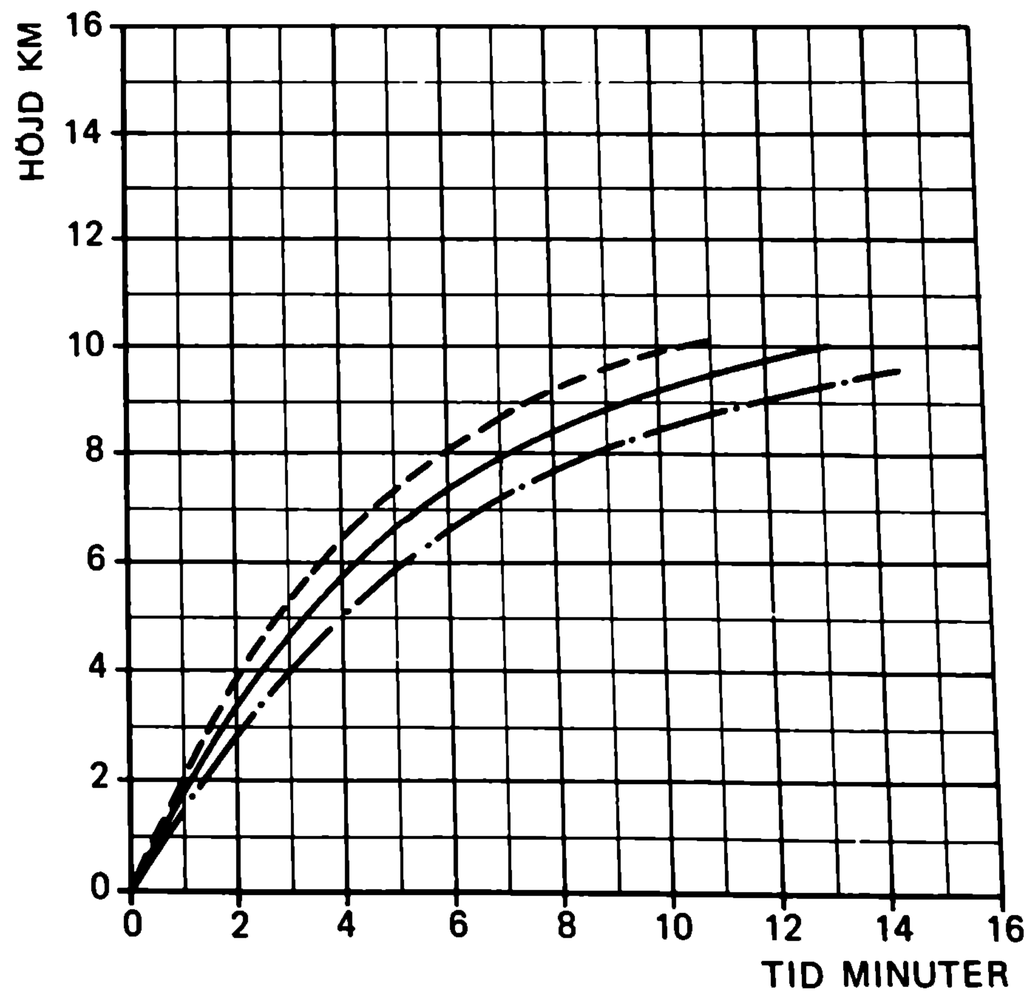
# STIGNING

**RENT FPL**
**MAX SLÄCKT**

**STIGNING MED $V_i$ = 675**
**TILL M = 0,90**



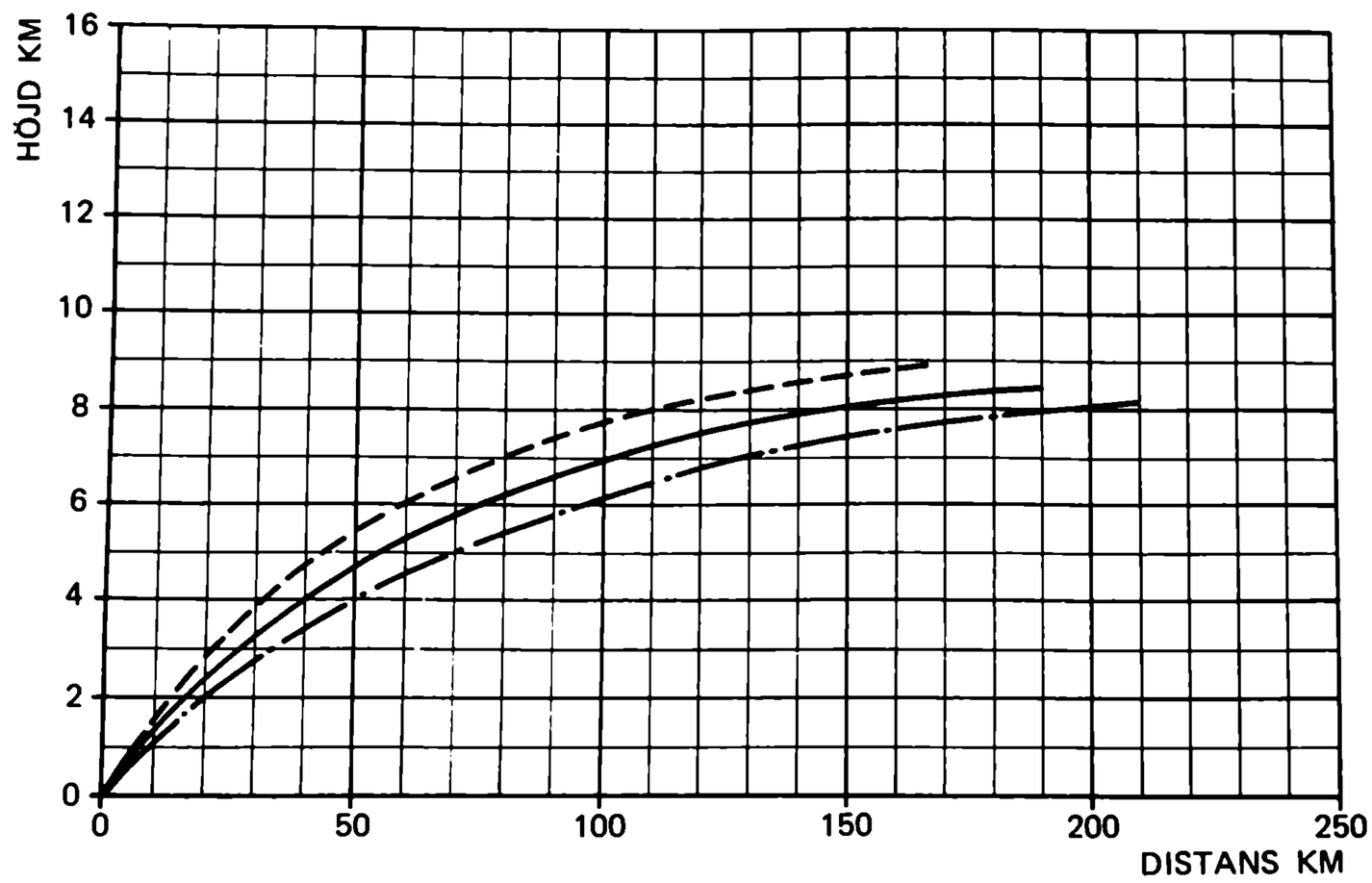



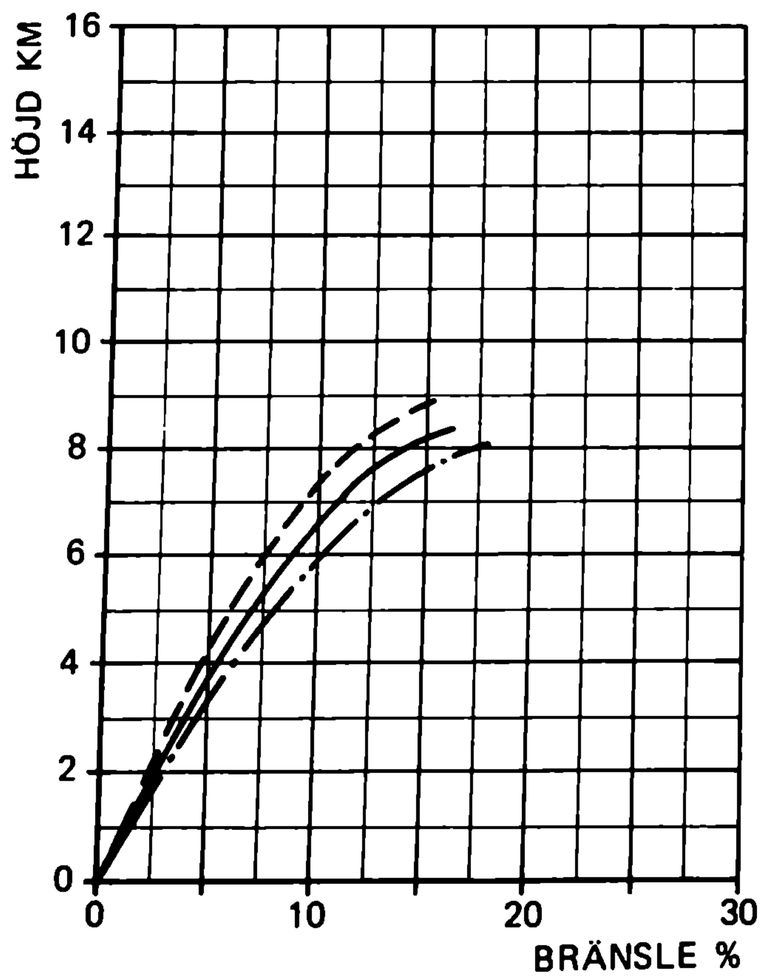

ISA ————
ISA+10 —·—·—
ISA−15 — — —

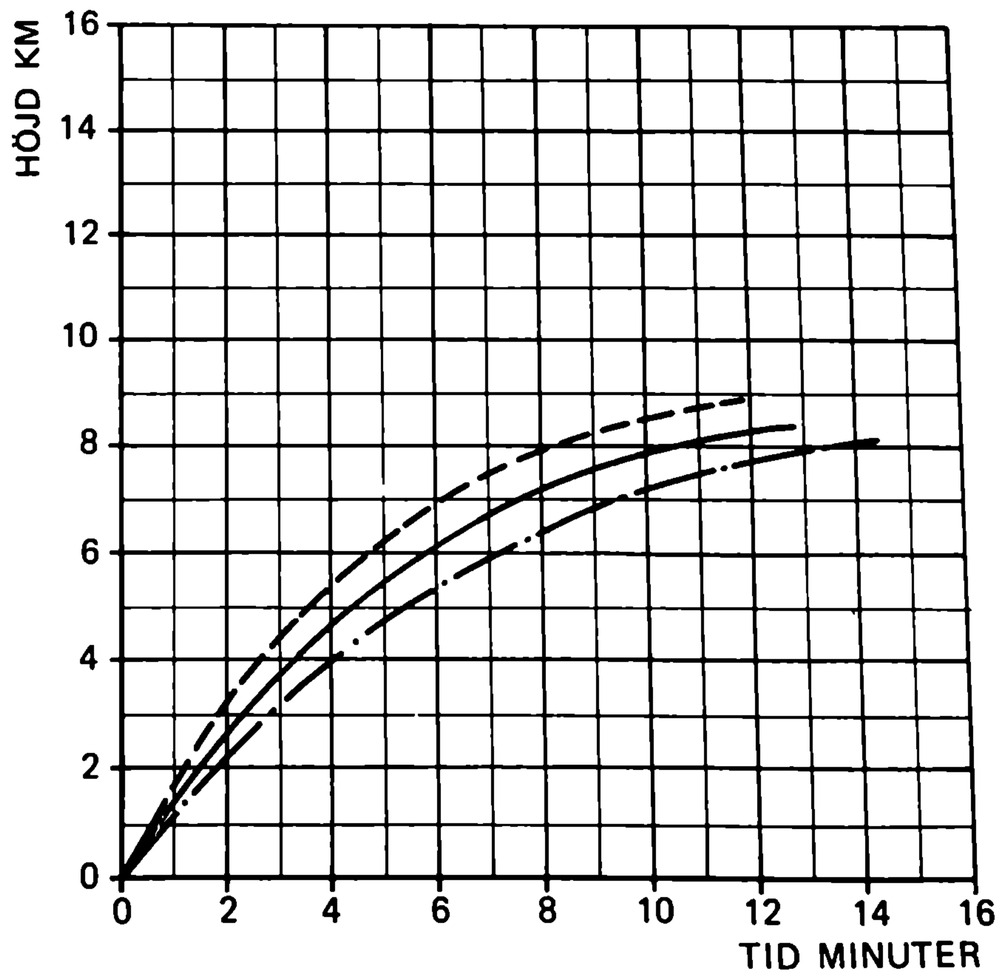
# STIGNING

**LASTALTERNATIV GRUPP 1**
**MAX SLÄCKT**

**STIGNING MED $V_i$ = 675**
**TILL M = 0,90**



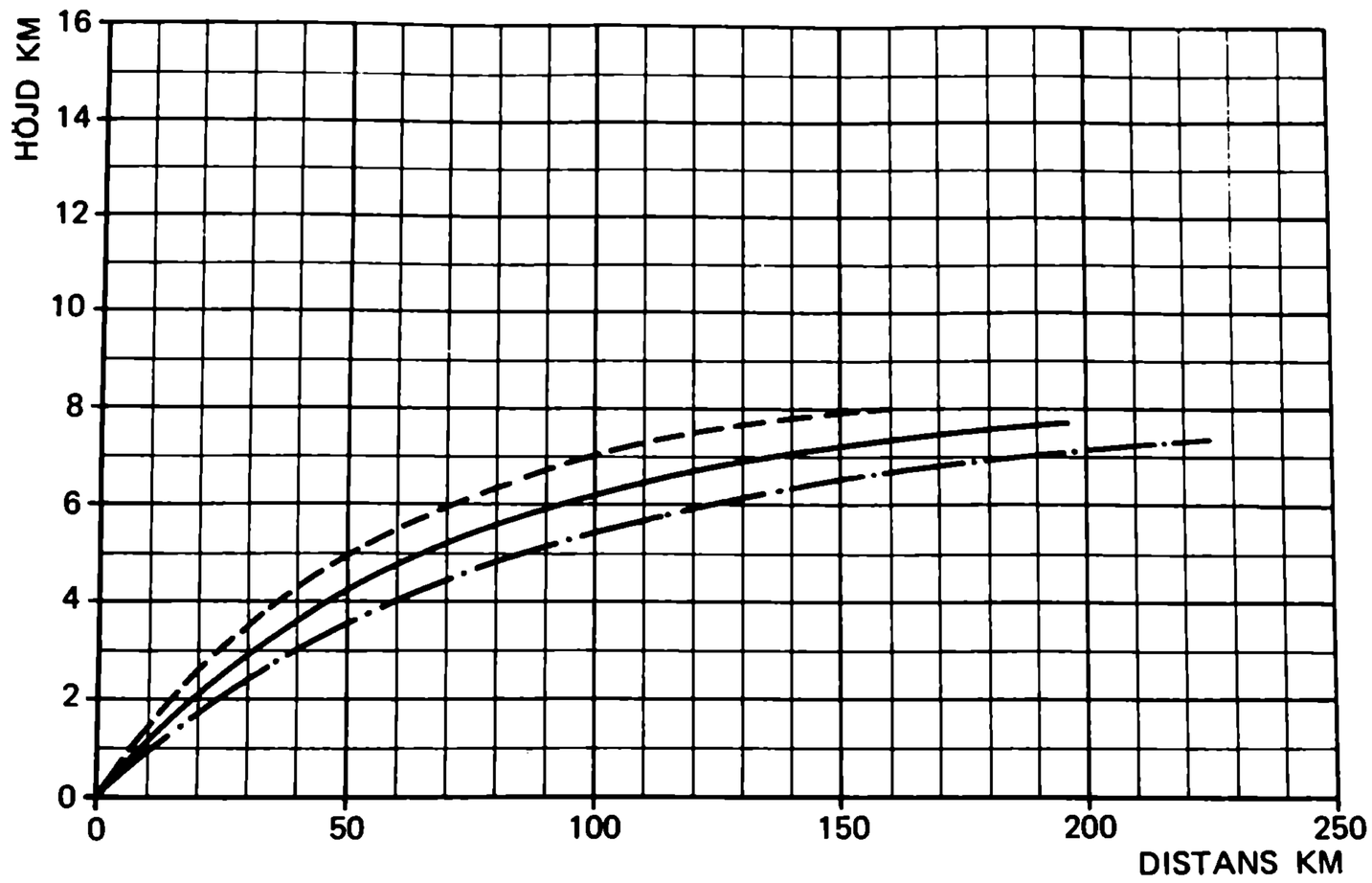



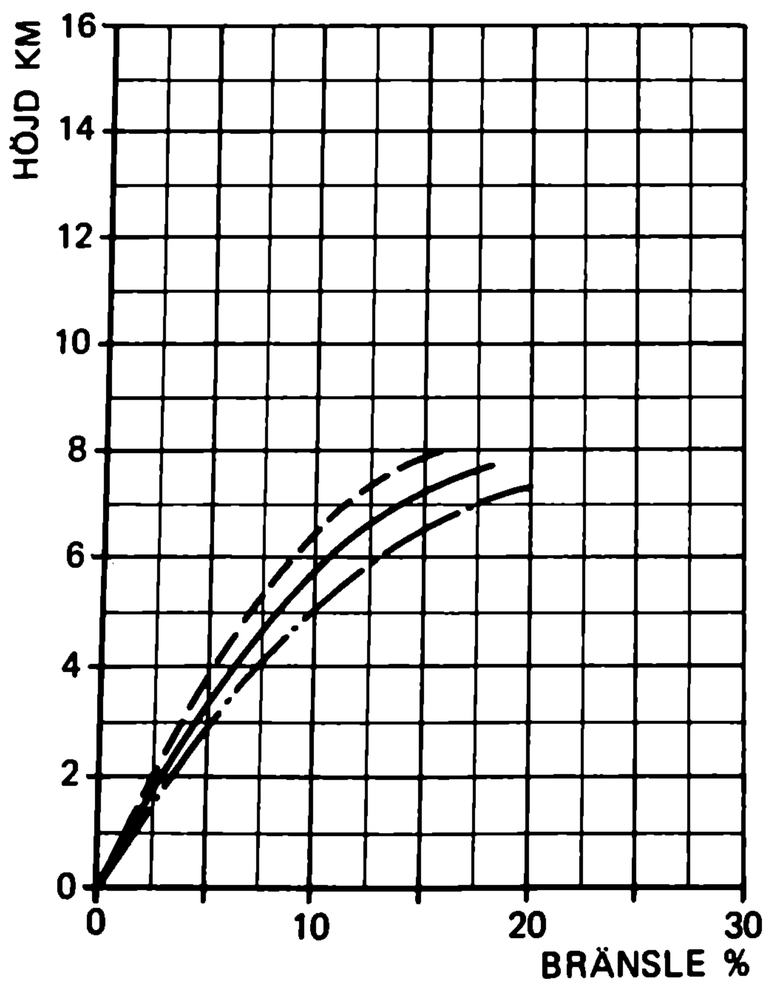

ISA
ISA+10
ISA−15

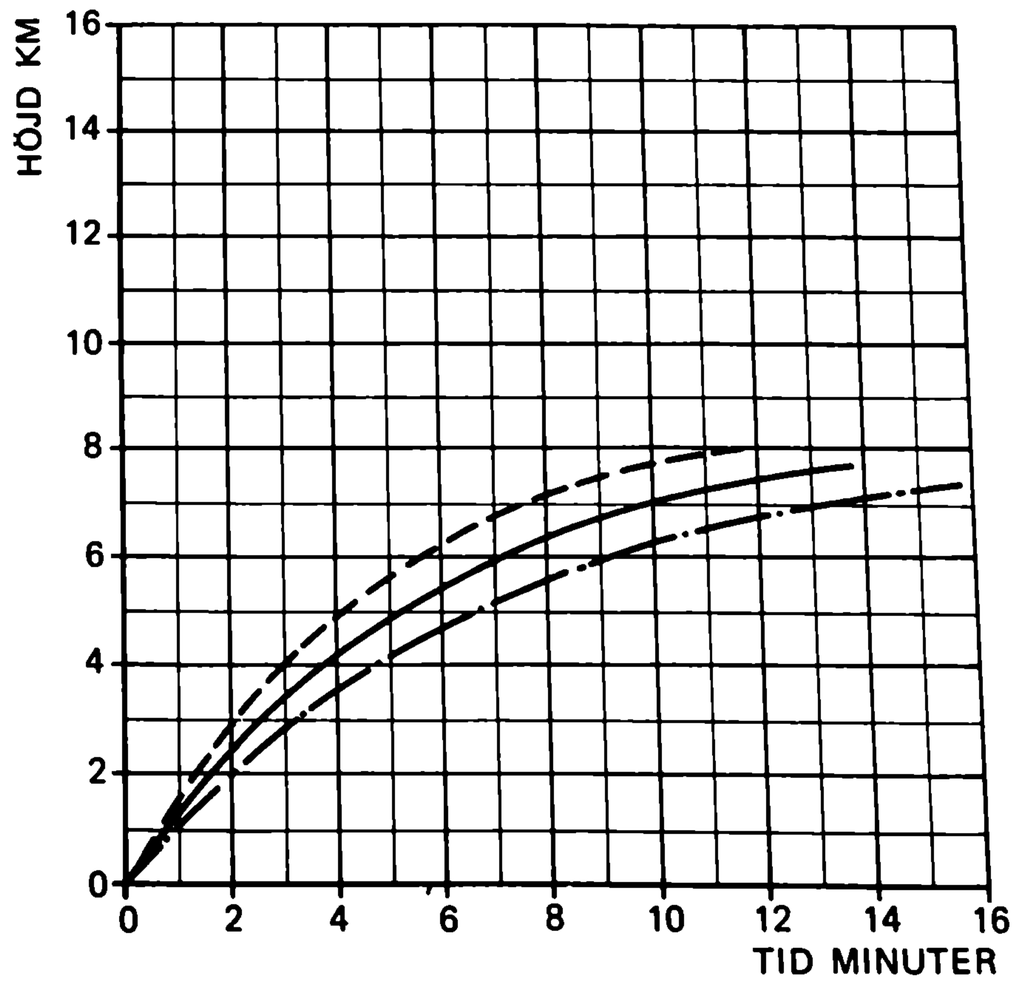
# STIGNING

**LASTALTERNATIV GRUPP 2**
**MAX SLÄCKT**

**STIGNING MED $V_i$ = 675**
**TILL M = 0,90**



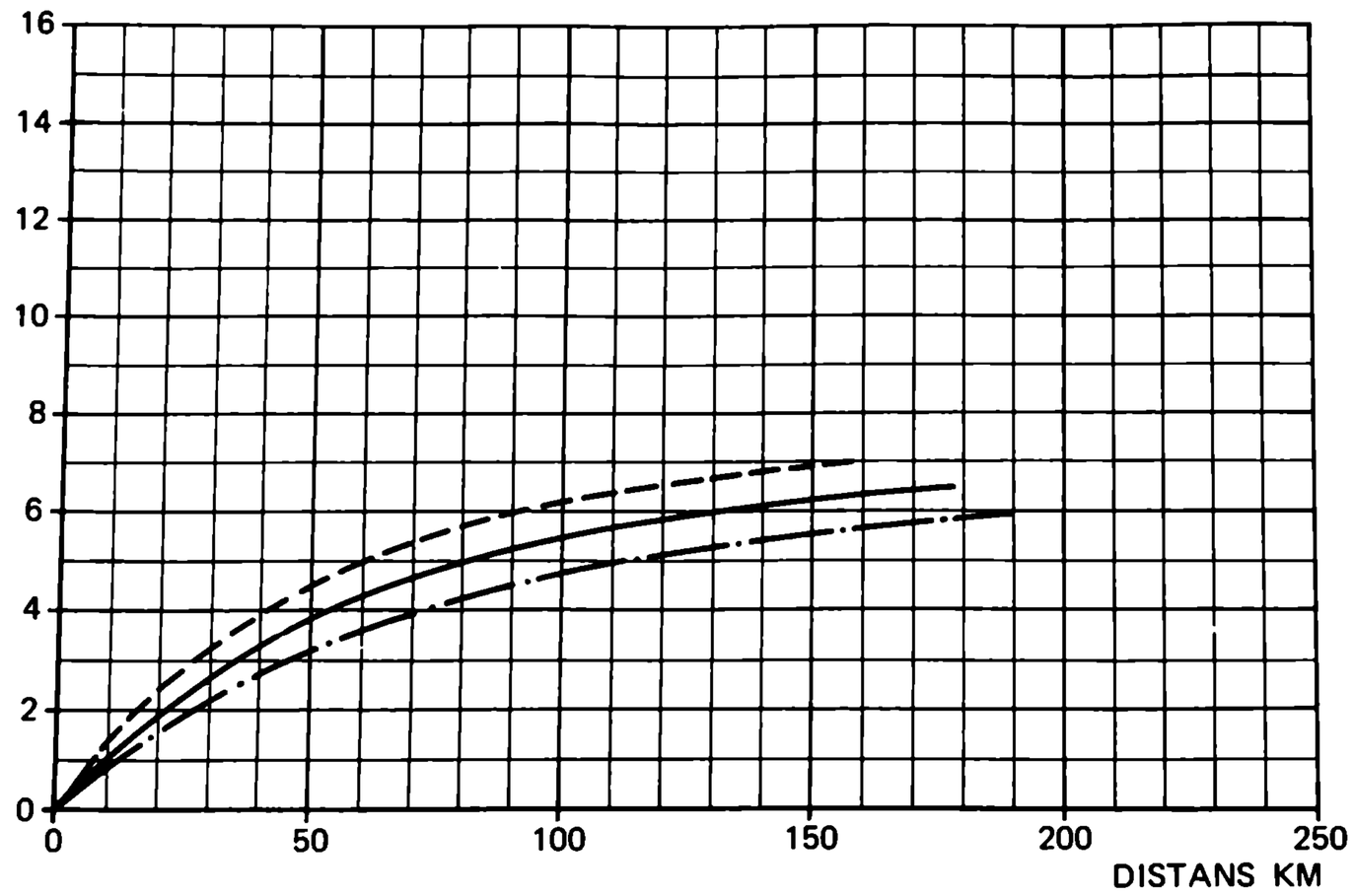



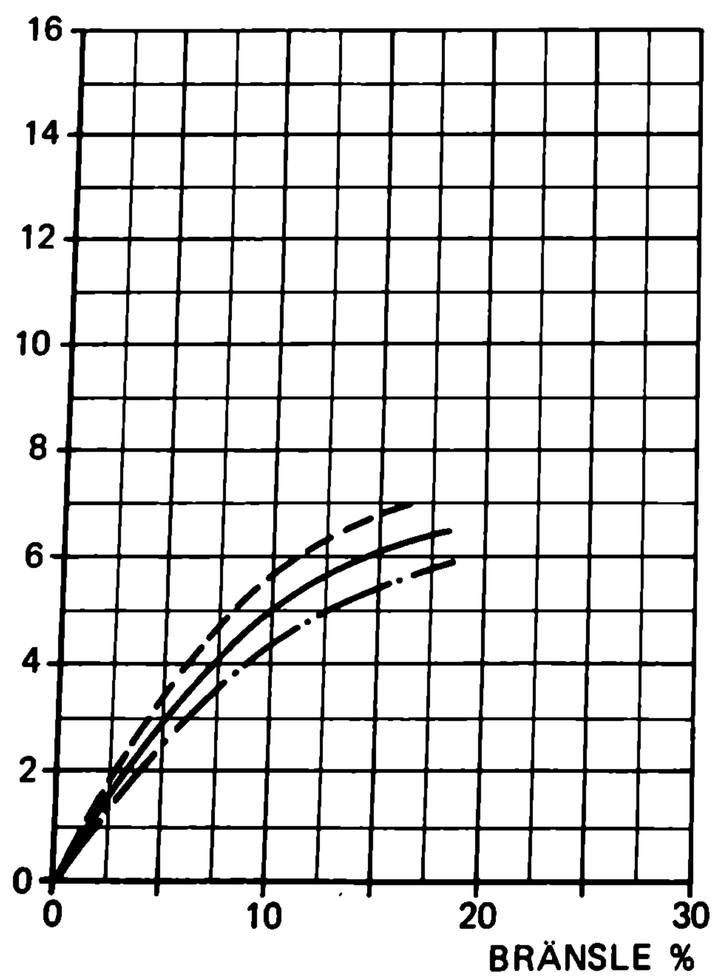

ISA ————
ISA+10 —·—·—
ISA−15 — — —

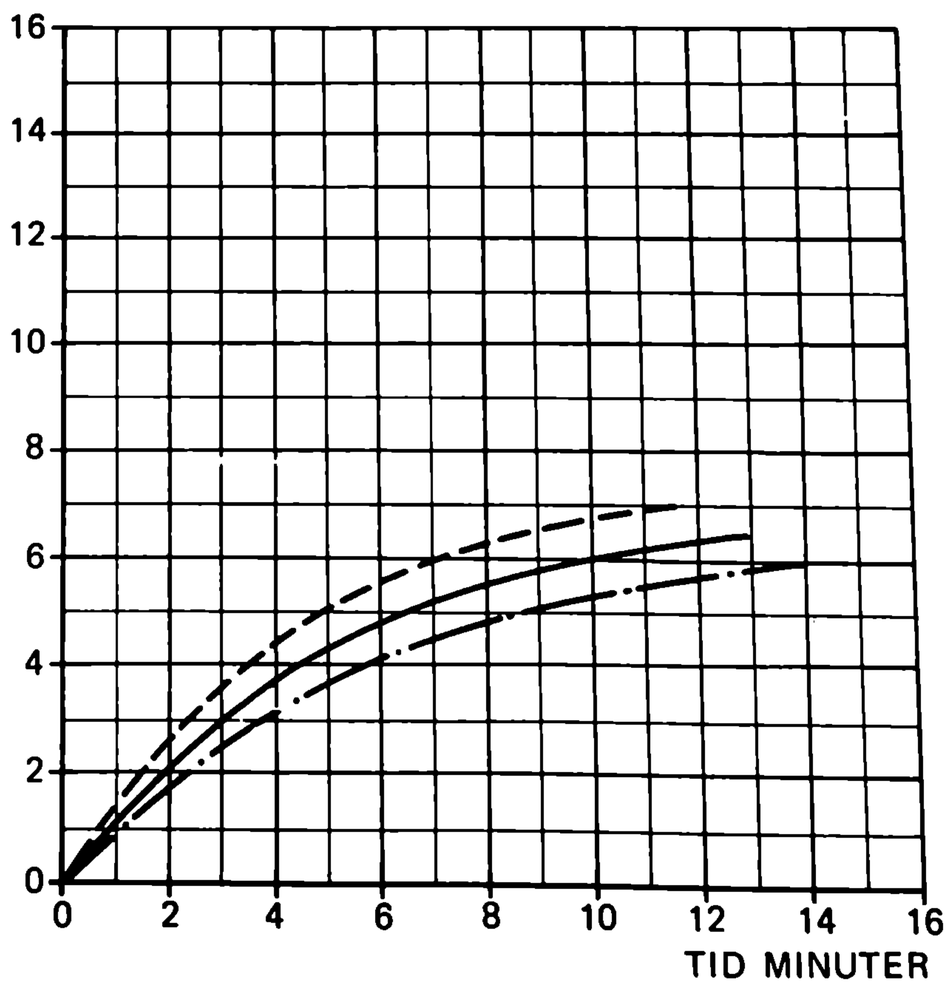
# STIGNING

**LASTALTERNATIV GRUPP 3**
**MAX SLÄCKT**

**STIGNING MED $V_i$ = 675**
**TILL M = 0,90**



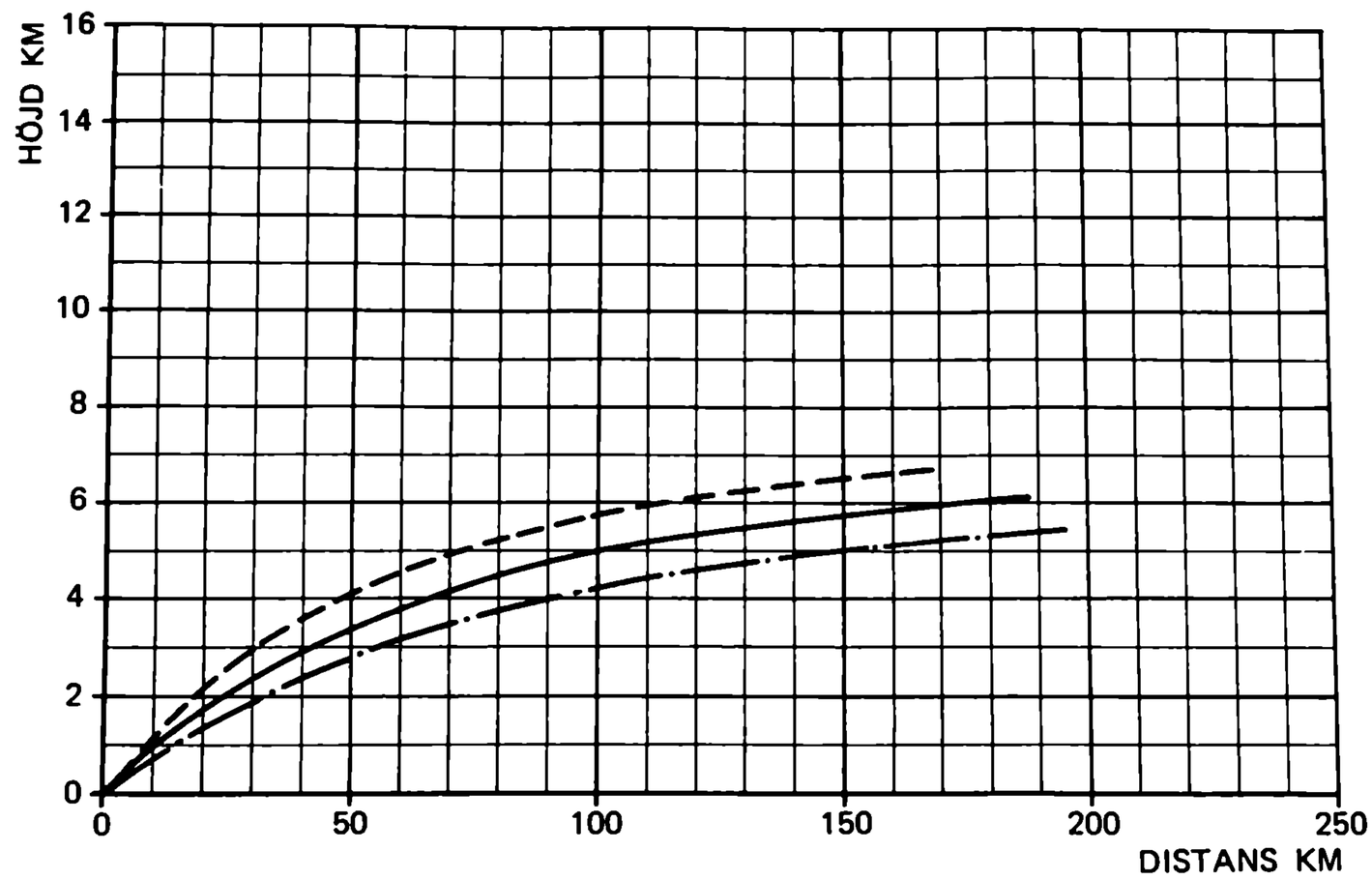



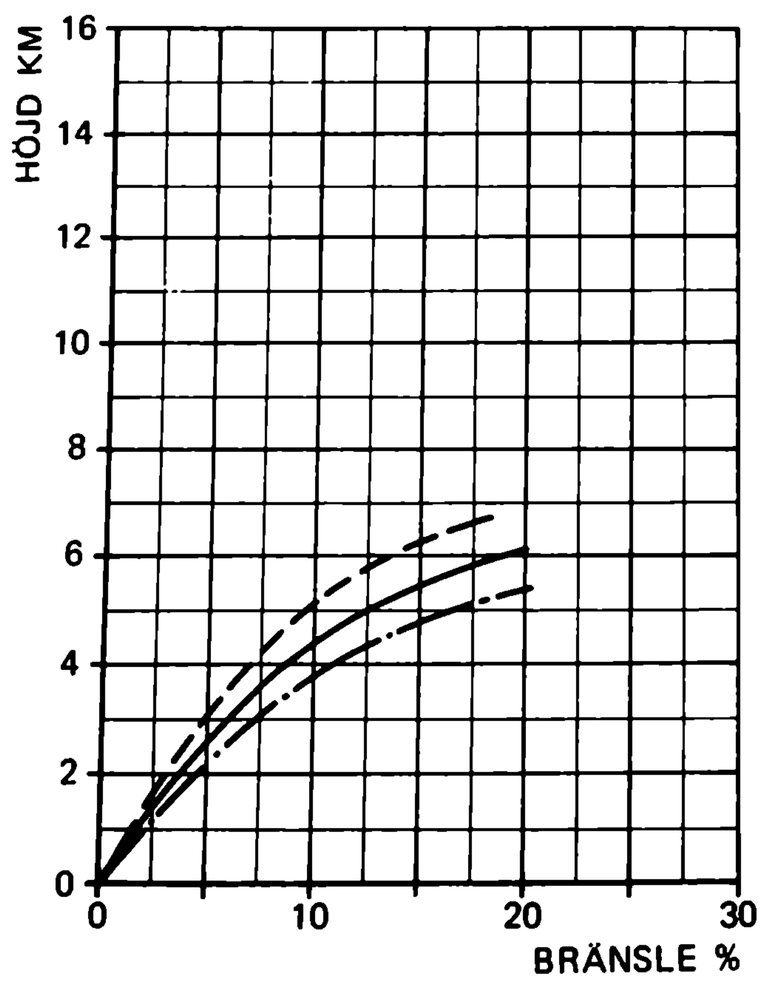

ISA ————
ISA+10 —·—·—
ISA−15 — — — —

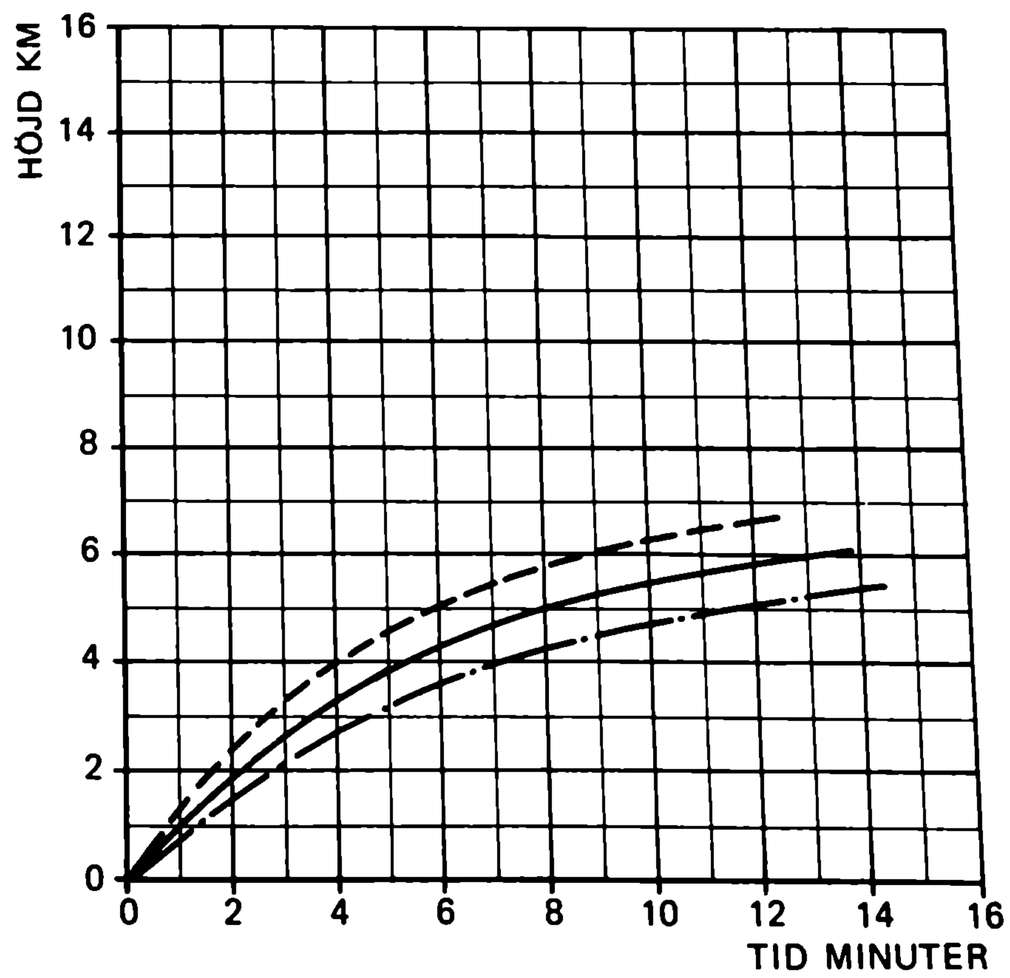
# STIGNING

**LASTALTERNATIV GRUPP 4**
**MAX SLÄCKT**

**STIGNING MED $V_i$ = 675**
**TILL M = 0,90**



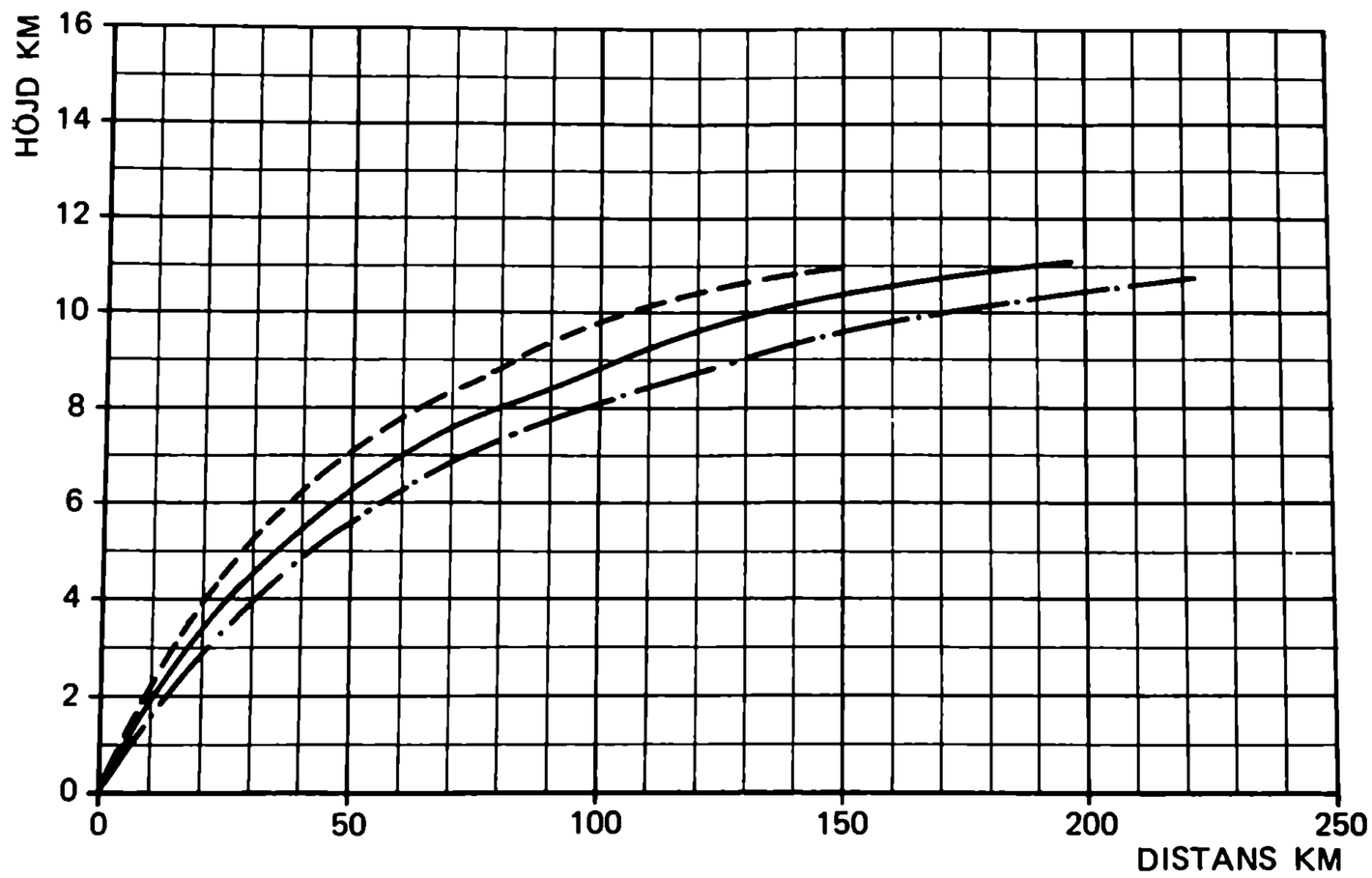



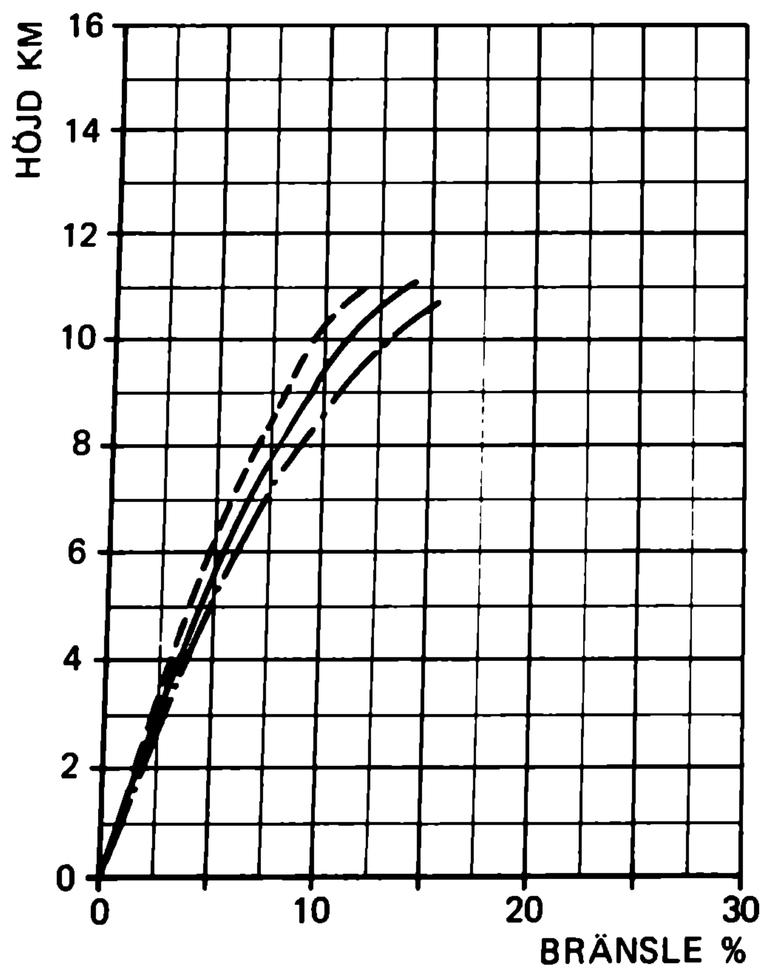

ISA ———
ISA+10 —·—·—
ISA−15 — — —

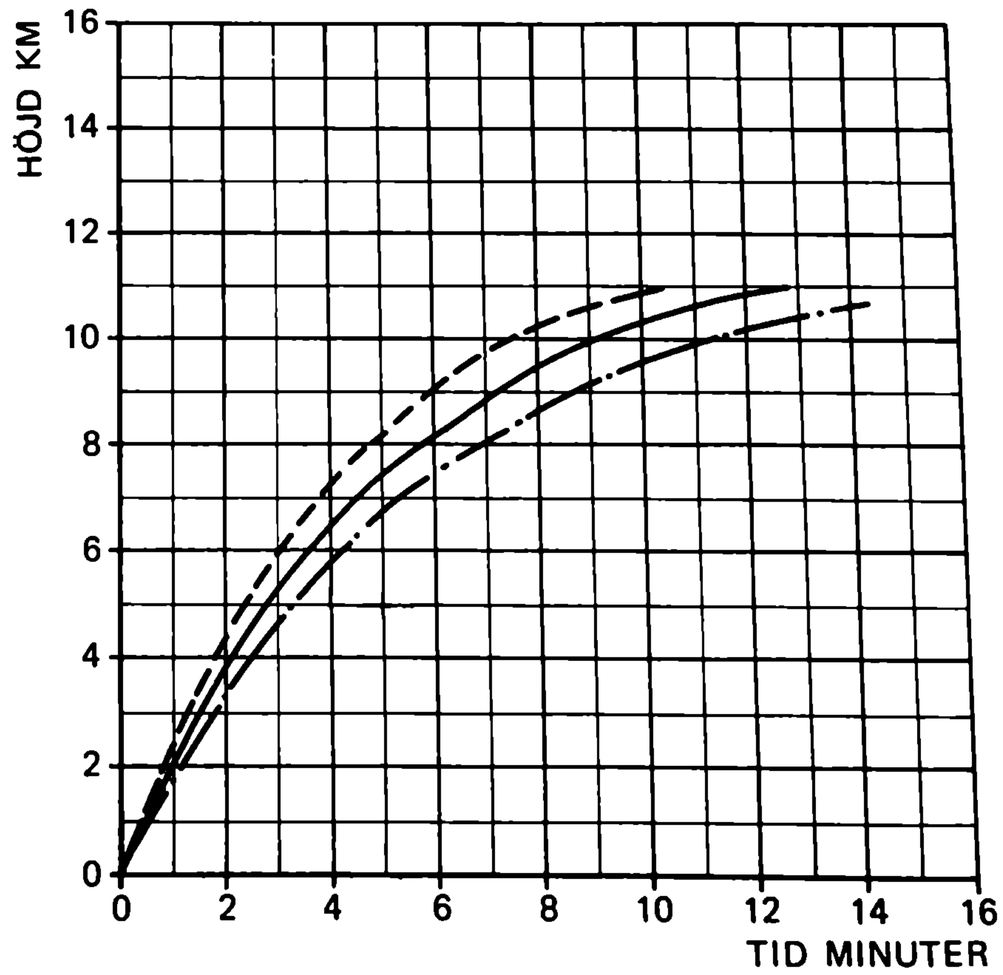
# STIGNING

**RENT FPL**
**MAX SLÄCKT**

**STIGNING MED $V_i$ = 675 TILL M = 0,90**
**ÅTERFLYGNING**



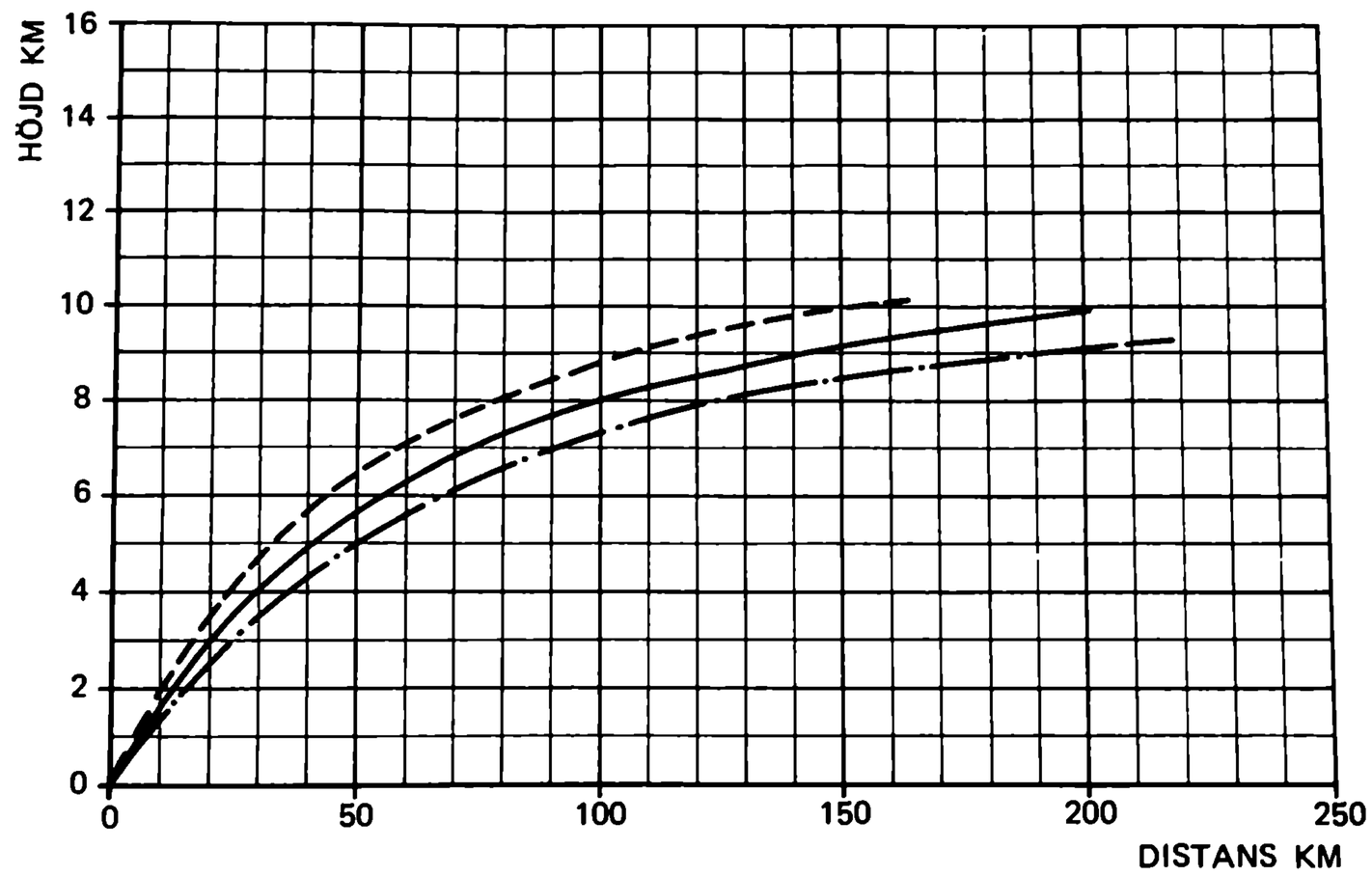



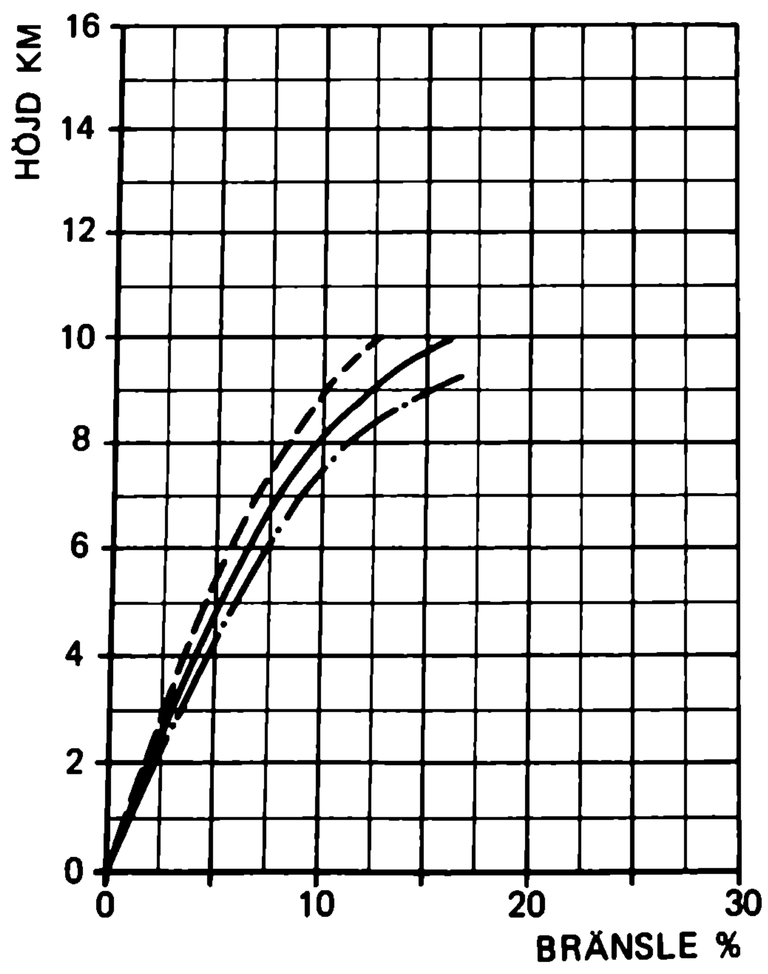

ISA ————
ISA+10 —·—·—
ISA−15 — — — —

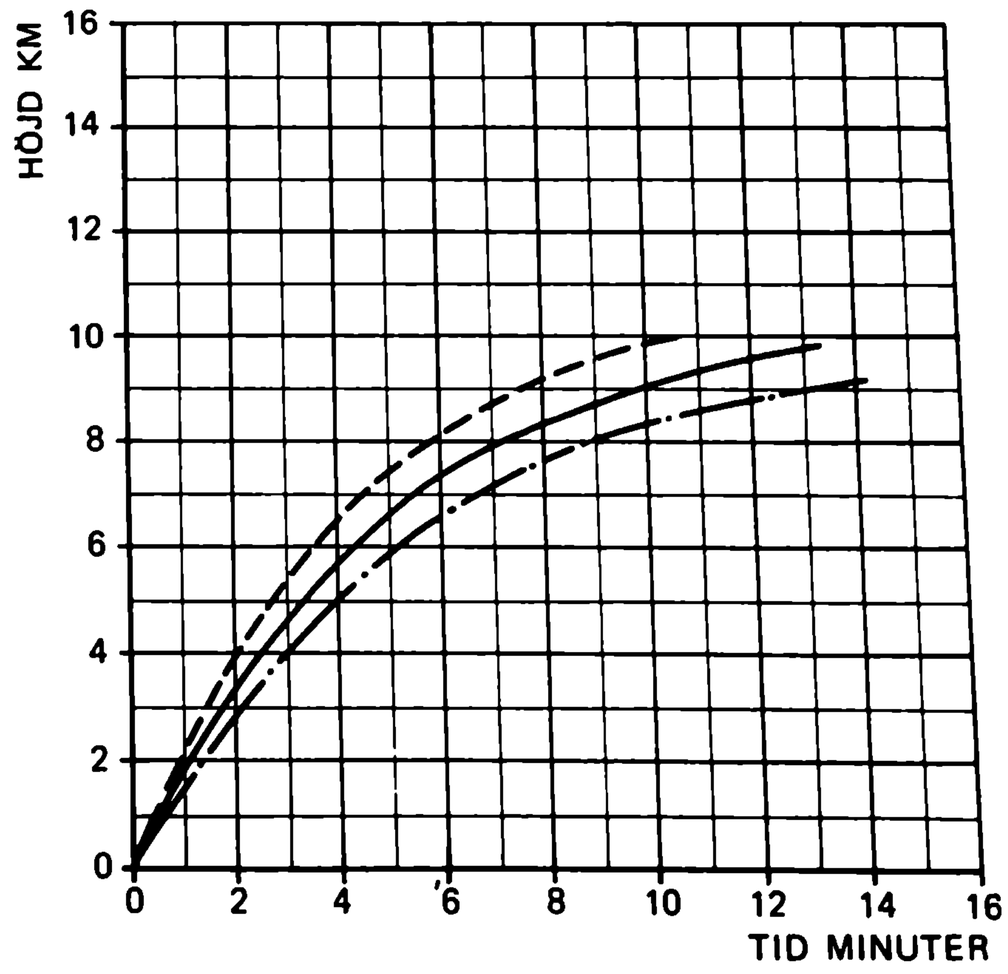
# STIGNING

**LASTALTERNATIV GRUPP 1**
**MAX SLÄCKT**

**STIGNING MED $V_i$ = 675 TILL M = 0,90**
**ÅTERFLYGNING**



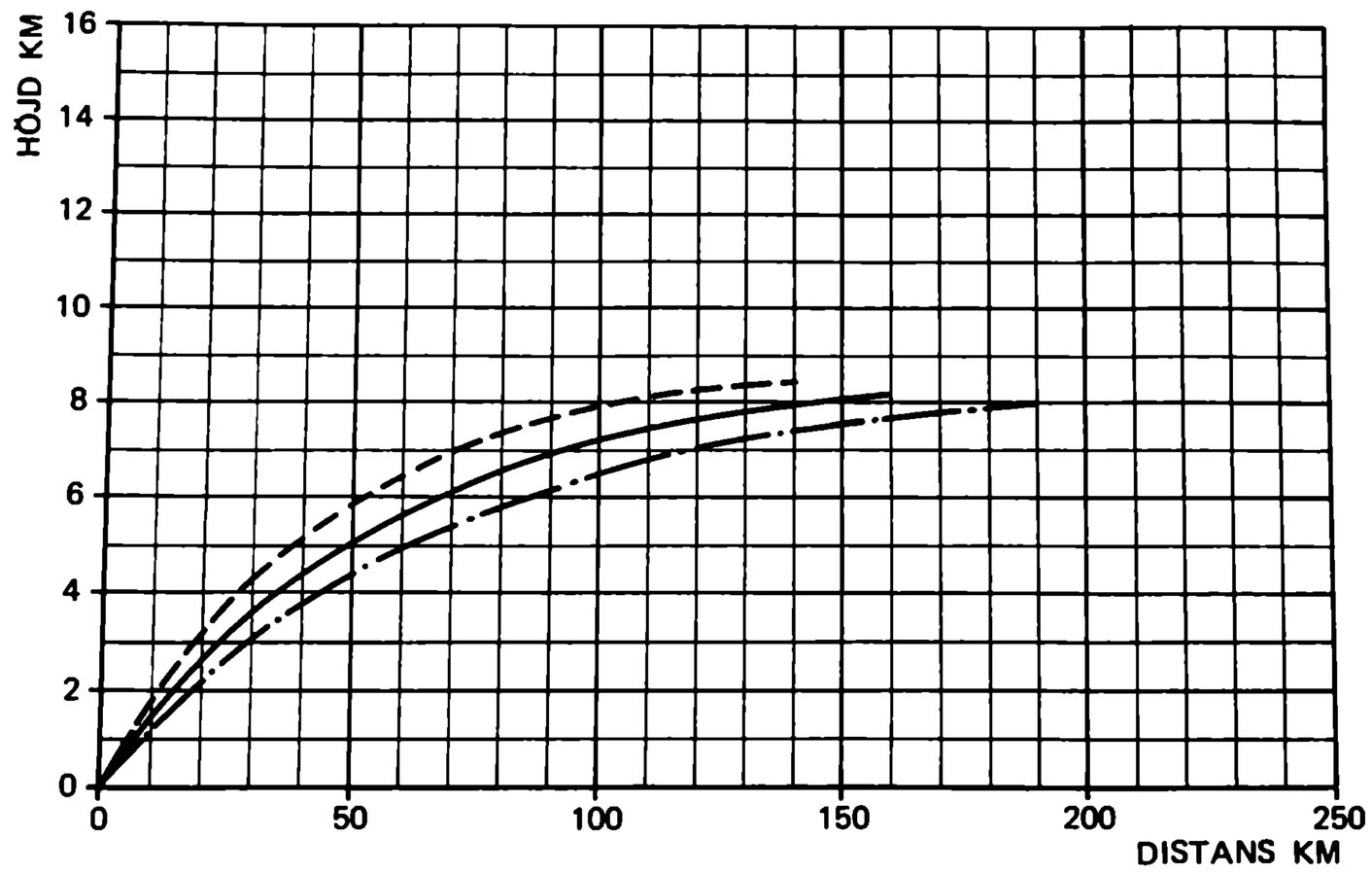



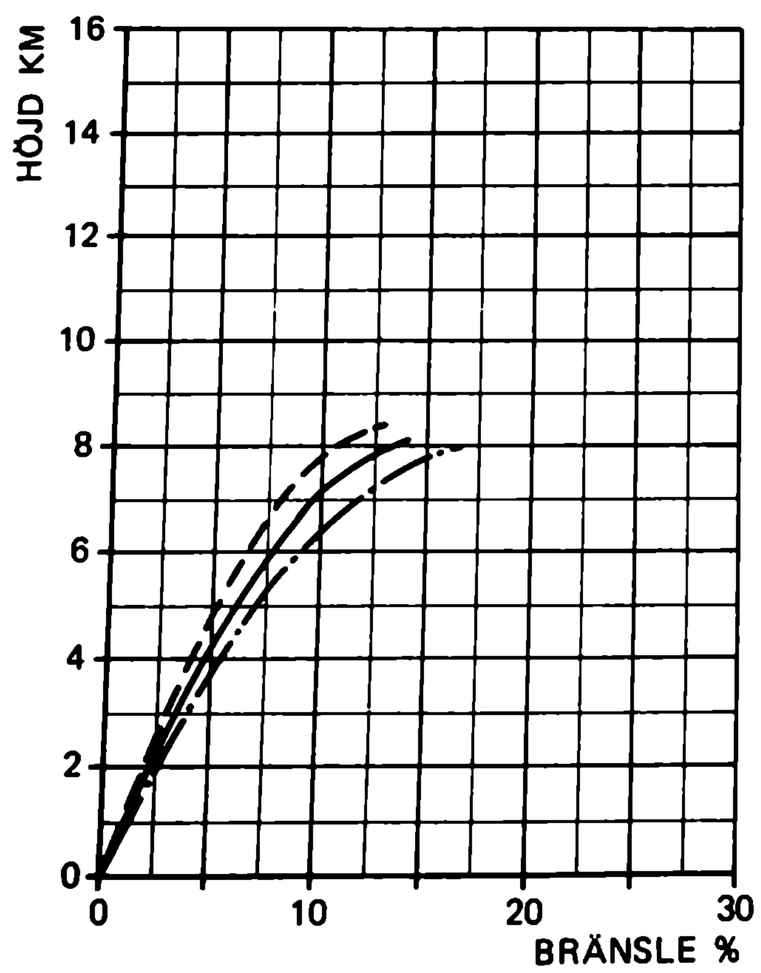

ISA ————
ISA+10 —·—·—
ISA−15 — — —

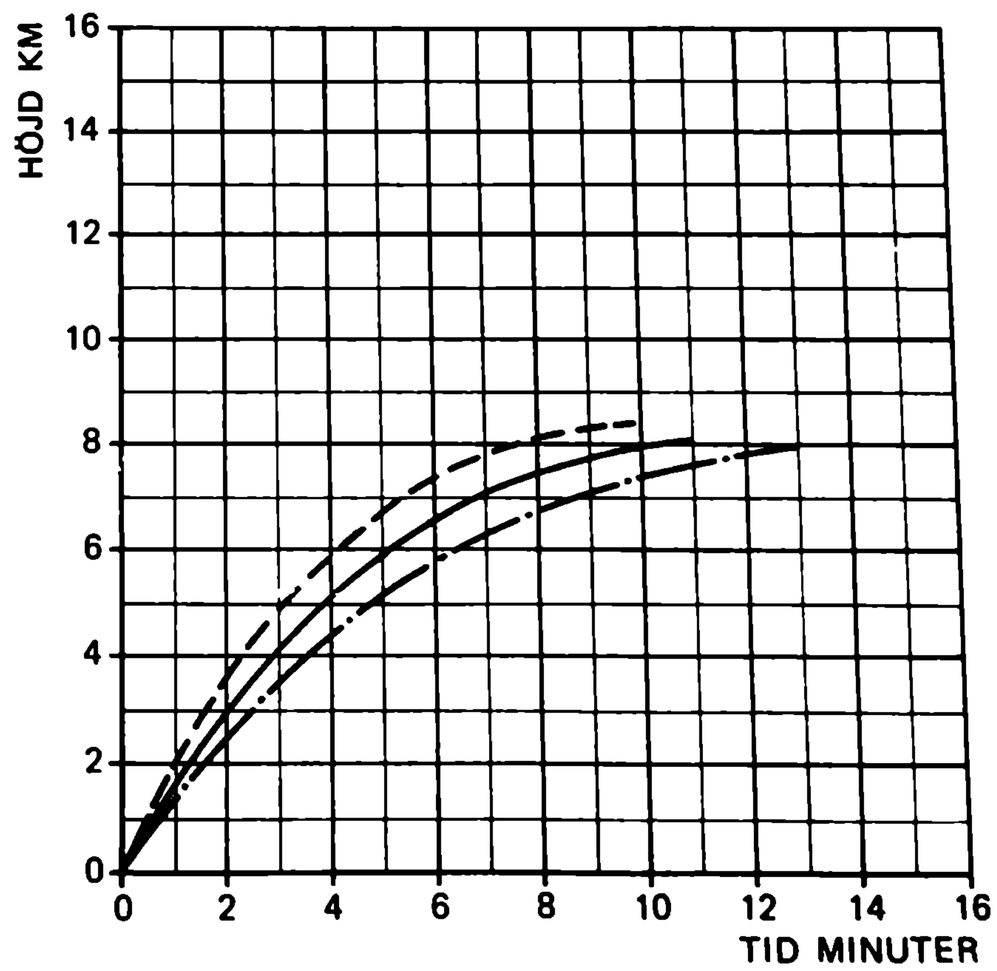
# STIGNING

**LASTALTERNATIV GRUPP 2**
**MAX SLÄCKT**

**STIGNING MED M = 675 TILL M = 0,90**
**ÅTERFLYGNING**



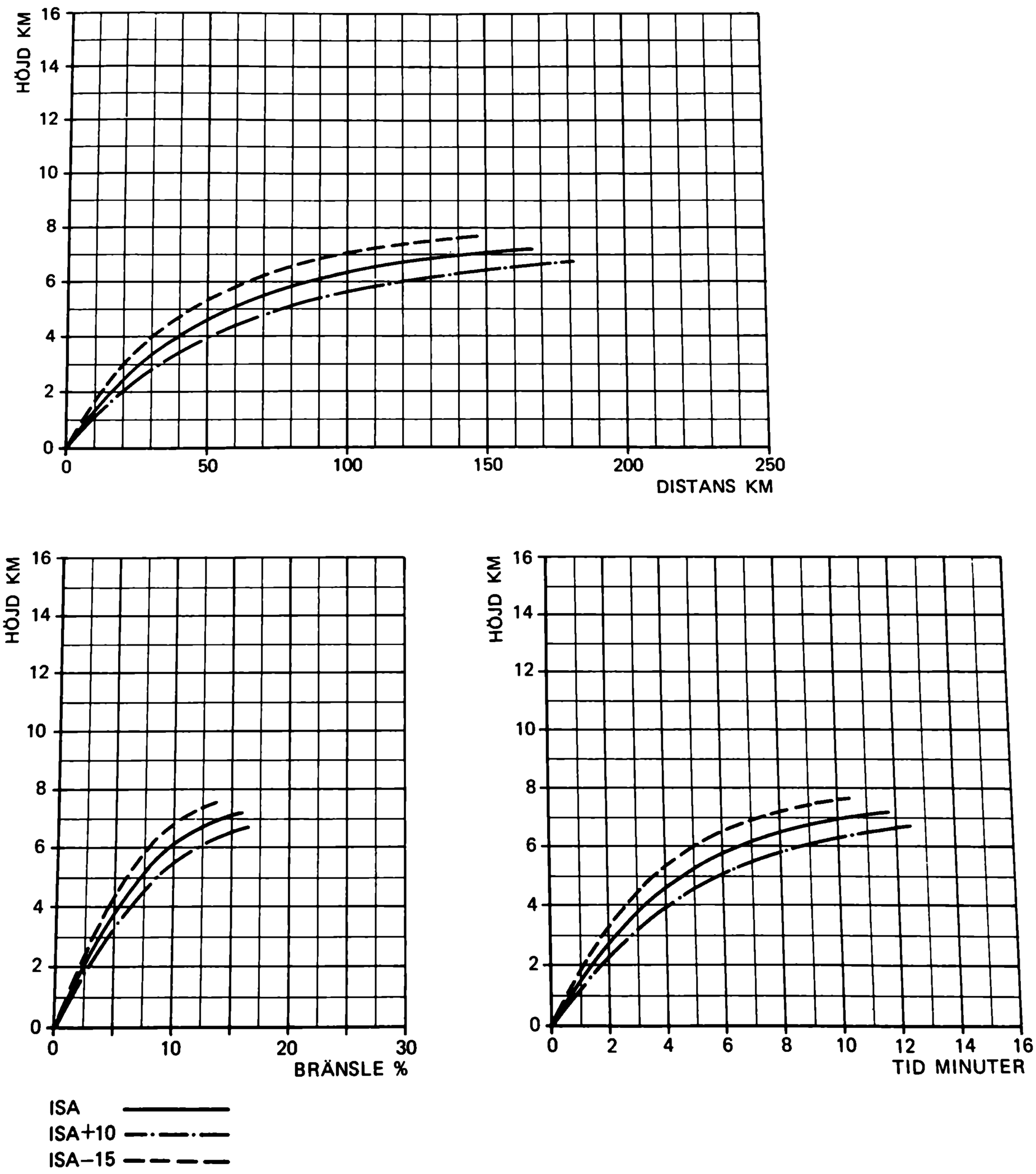




ISA ———
ISA+10 —·—·—
ISA−15 — — —

# STIGNING

**LASTALTERNATIV GRUPP 3**
**MAX SLÄCKT**

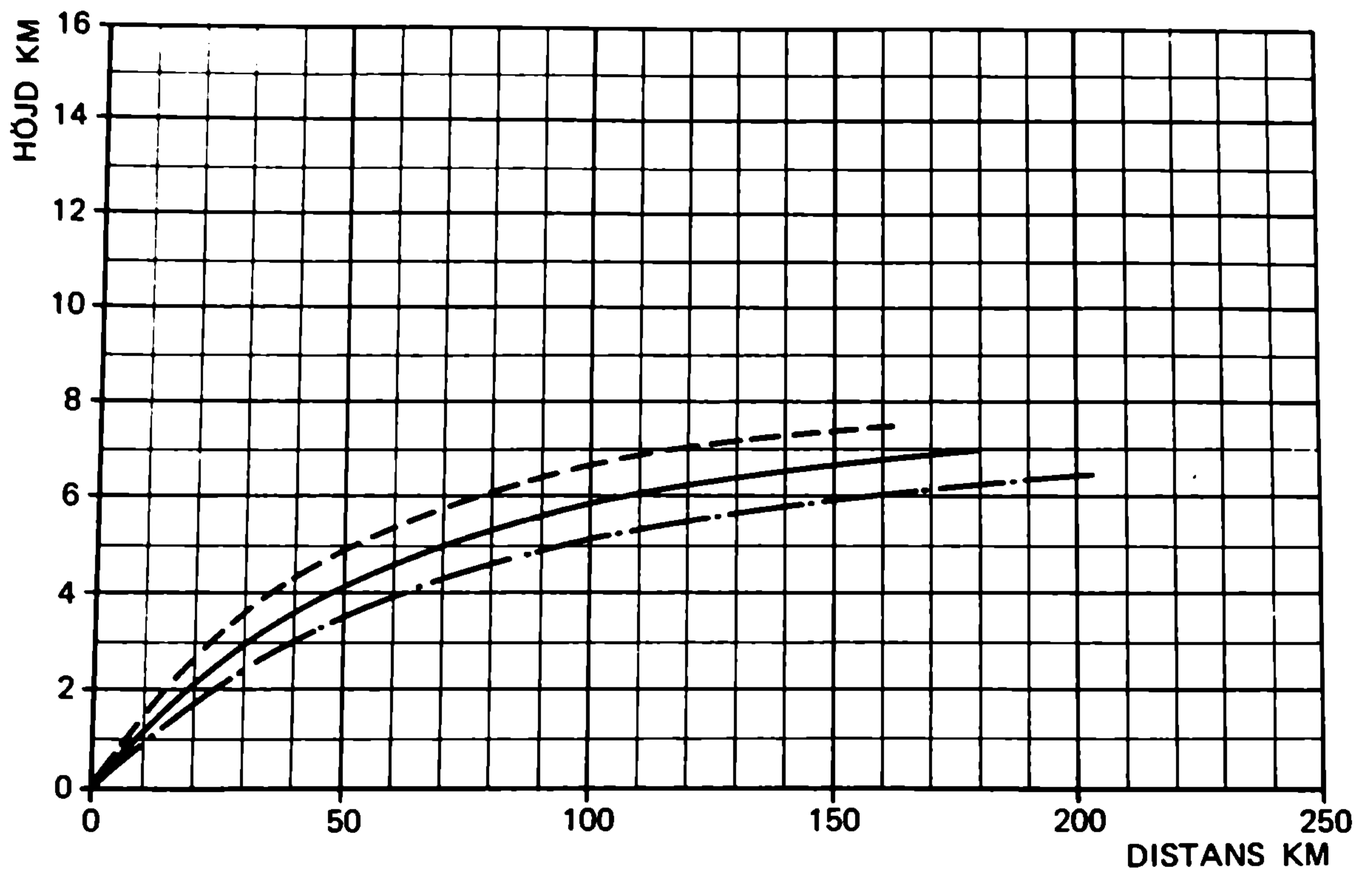
**STIGNING MED = 675 TILL M = 0,90**
**ÅTERFLYGNING**

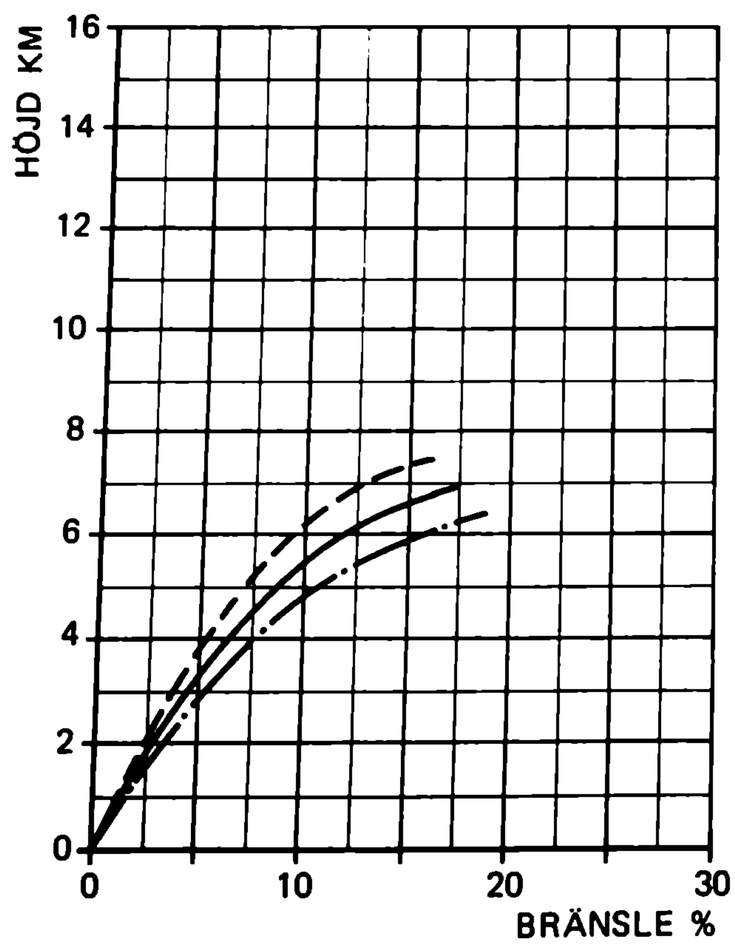


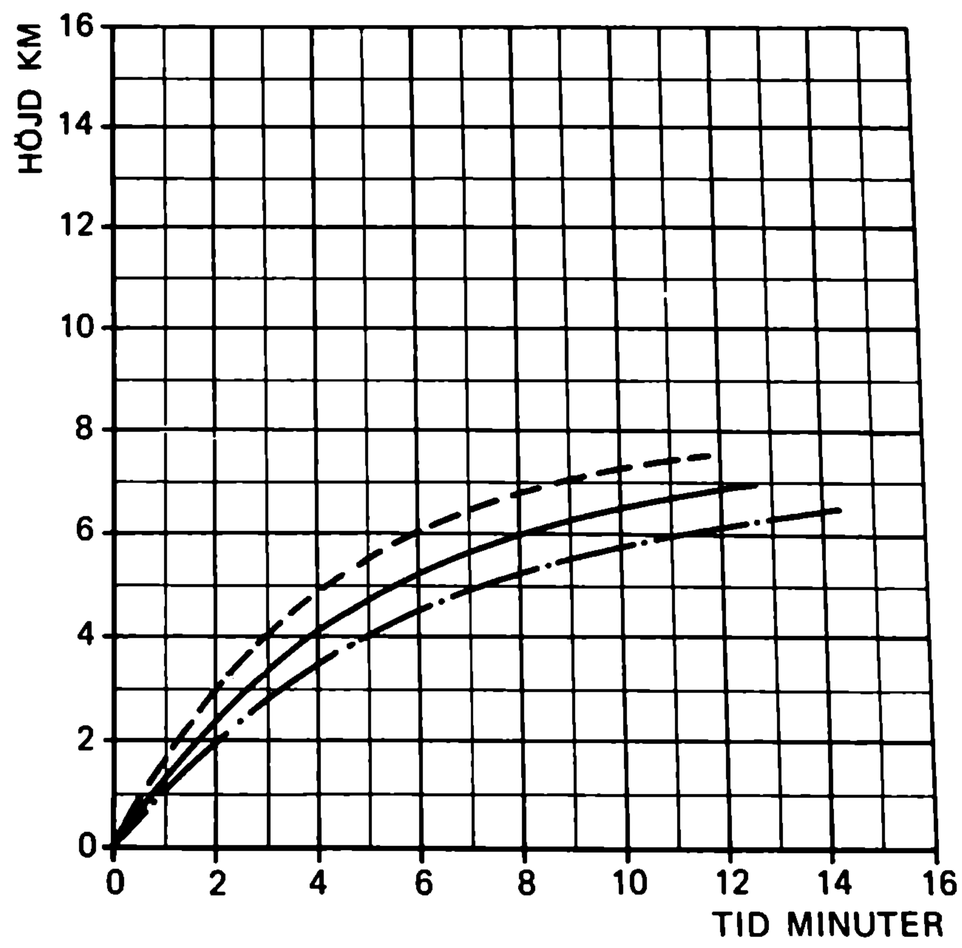
# STIGNING

**LASTALTERNATIV GRUPP 4**
**MAX SLÄCKT**

**STIGNING MED $V_i$ = 675 TILL M = 0,90**
**ÅTERFLYGNING**




ISA ————
ISA+10 —·—·—
ISA−15 — — — —

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# PLANFLYKT

# DIAGRAMBESKRIVNING OCH ÖVNINGSEXEMPEL

## Planflykt lastfaktor 1,0 varierat motorpådrag

Planflyktsenvelopp vid tänd ebk och max släckt vid ISA atmosfär. För max tänd ebk finns även kurvor för ISA +10 och ISA −15.
Vikt: Flygvikt

## Planflykt max släckt

Jämviktsfart och bränsleförbr (% per min) vid max släckt
Lastalt: Rent fpl + grupp 1 — 4
Atmosfär: ISA, ISA +10, ISA −15, ISA −30 och ISA −45
Vikt: Flygvikt

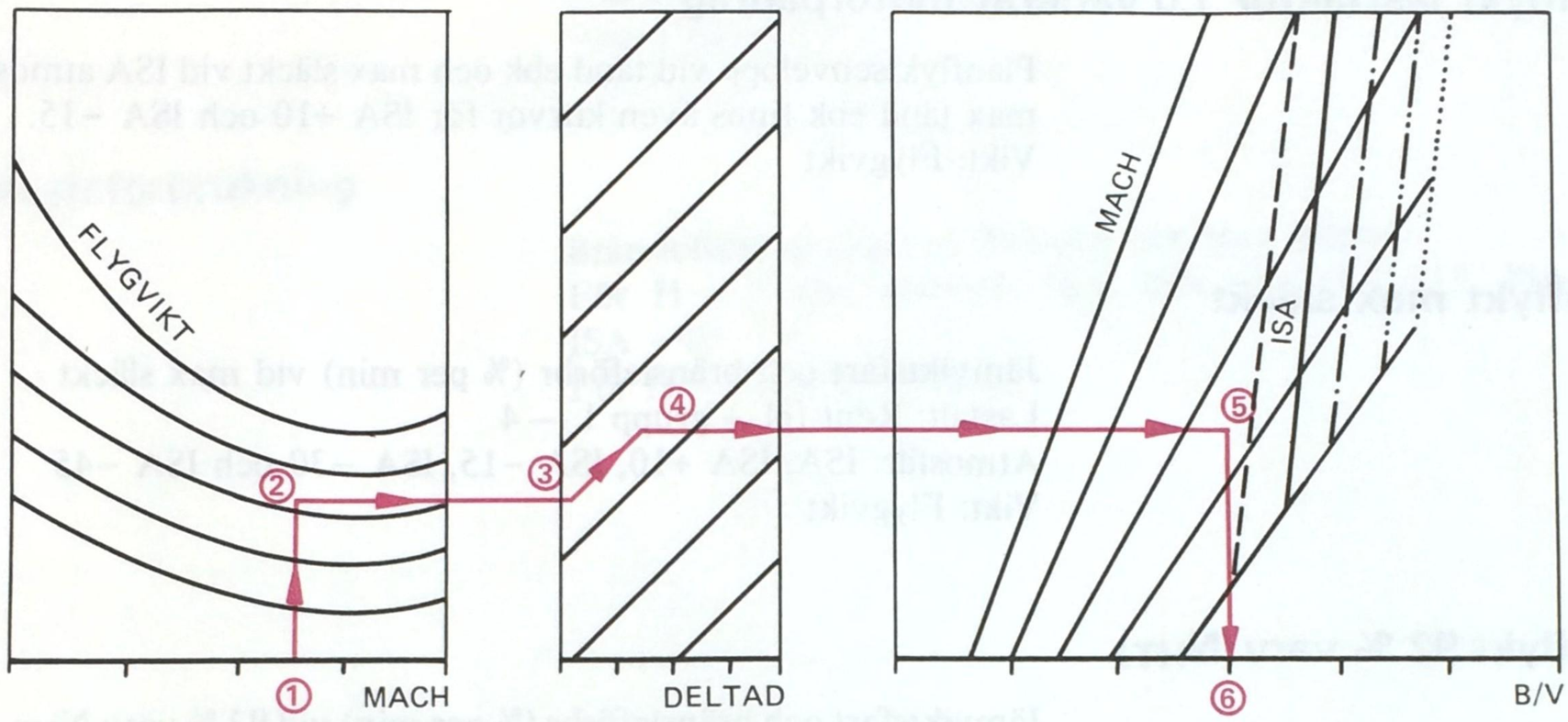
## Planflykt 92 % varv ($N_{HT}$)

Jämviktsfart och bränsleförbr (% per min) vid 92 % varv $N_{HT}$
Lastalt: Rent fpl + Grupp 1 — 4
Atmosfär: ISA, ISA +10, ISA −15, ISA −30, ISA −45
Vikt: Flygvikt

## Kilometerförbrukning

Kilometerförbrukning (B/V) i % bränsle km flygsträcka
Höjd 0, 2, 4, 6 och 8 km
Atmosfärsinverkan försumbar. Begränsningslinjer för max släckt vid olika atmosfärer har inlagts i diagrammen
Beräkning av kilometerförbrukning (se fig)

Beräkning av kilometerförbrukning beräkningsgång (se fig)




Beräkning av kilometerförbrukning beräkningsgång (se fig)

1 Gå in med önskat machtal

2 Följ linjen till aktuell flygvikt (Vikter se tab kap 1)

3 Gå ut vågrätt till korrektionsdiagrammet för DELTAD (DELTAD för olika lastalt, och farter finns i tab kap 1)

4 Följ parallellt med ledlinjerna till aktuellt DELTAD

5 Gå ut vågrätt till önskat machtal. Kontrollera att begränsningslinjerna för max släckt vid aktuell atmosfär ej överskrids

6 Gå ner lodrätt och läs av B/V

**Exempel** (inritad på diagram sid 21)
Att beräkna B/V vid M = 0,6 och H = 0 km för fpl med 4 RA + XT.
Vikt 15000 kg.
**Lösning**: Ur tab kap 1 fås **DELTAD = 27**
**B/V = 0,101 % per km**

## Motstånd — Dragkraft H = 0

Diagrammet visar motstånd och drivkraft vid tänd ebk och max släckt vid ISA atmosfär, se sid 26. För max tänd och max släckt finns även inflytande av atmosfär, se sid 27.
Lastalt: Rent fpl + grupp 1 — 4
Vikt: Flygvikt

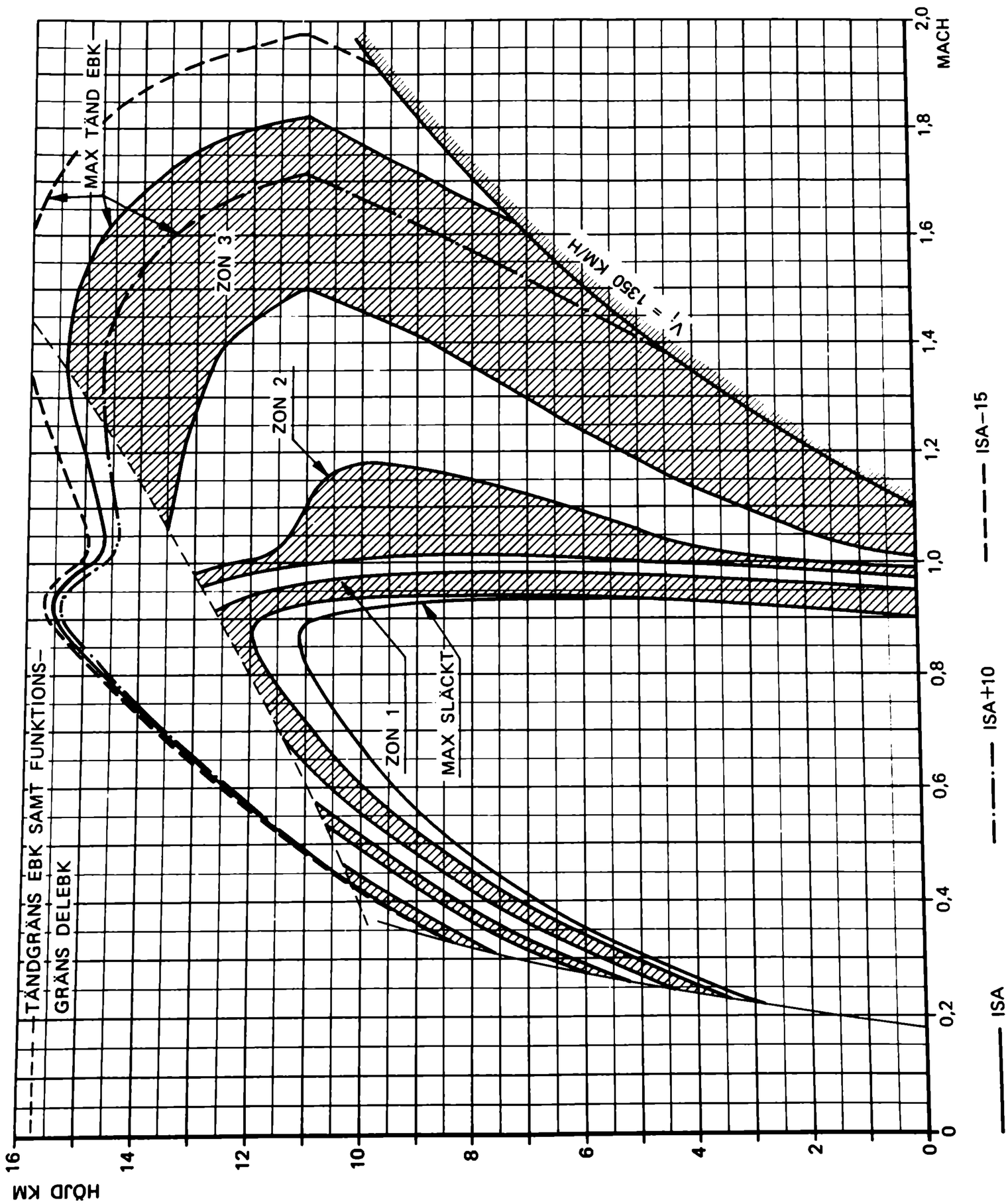
## Bränsleförbrukning

Bränsleförbrukning vid tänd ebk och max släckt
För H = 0 km atmosfär ISA, ISA +10, ISA −15, ISA −30 och ISA −45
För H = 4 och 8 km ISA

# PLANFLYKT

**RENT FPL**
**VARIERAT MOTORPÅDRAG**

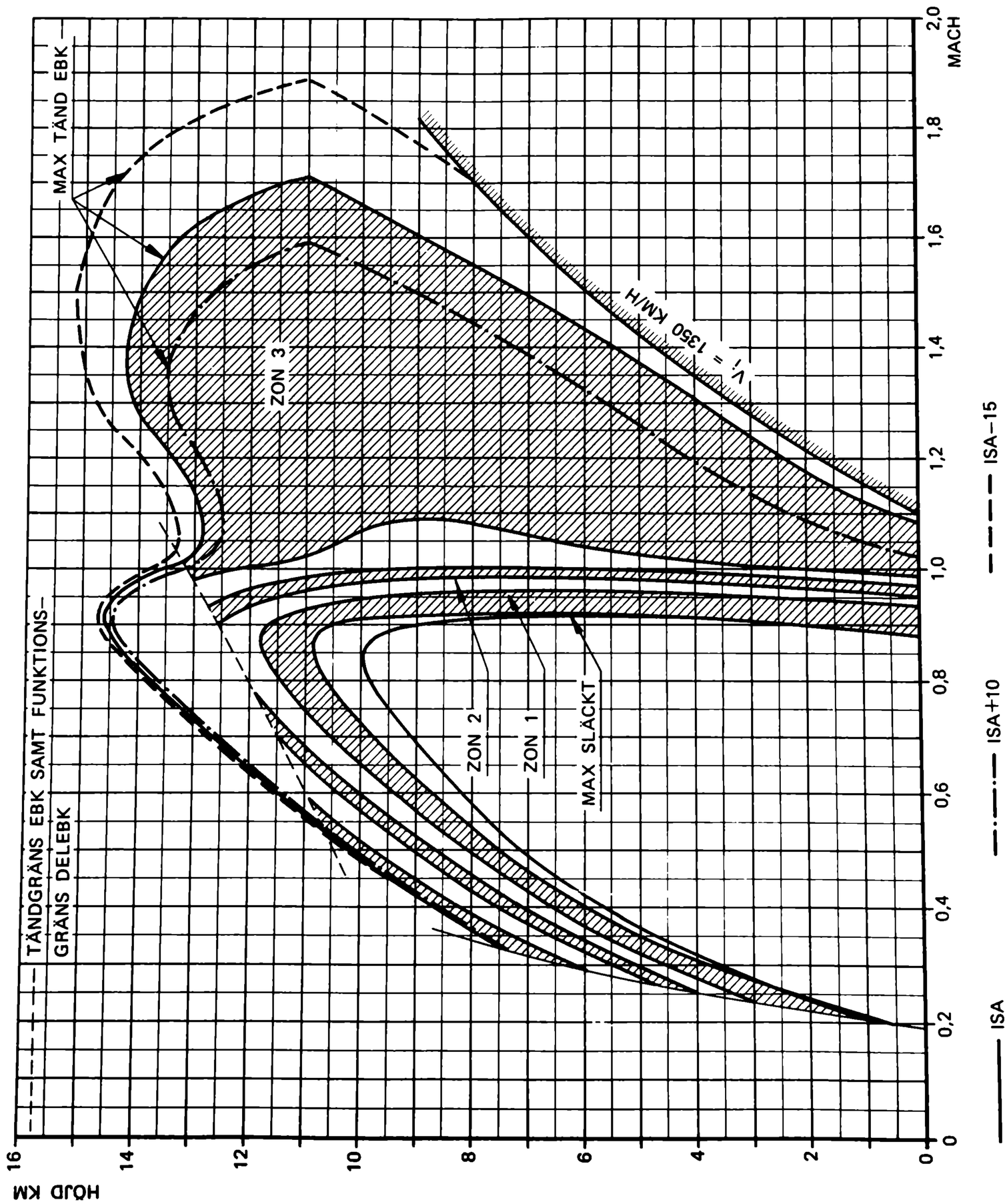
**LASTFAKTOR 1,0**



# PLANFLYKT

**LASTALTERNATIV GRUPP 1**
**VARIERAT MOTORPÅDRAG**

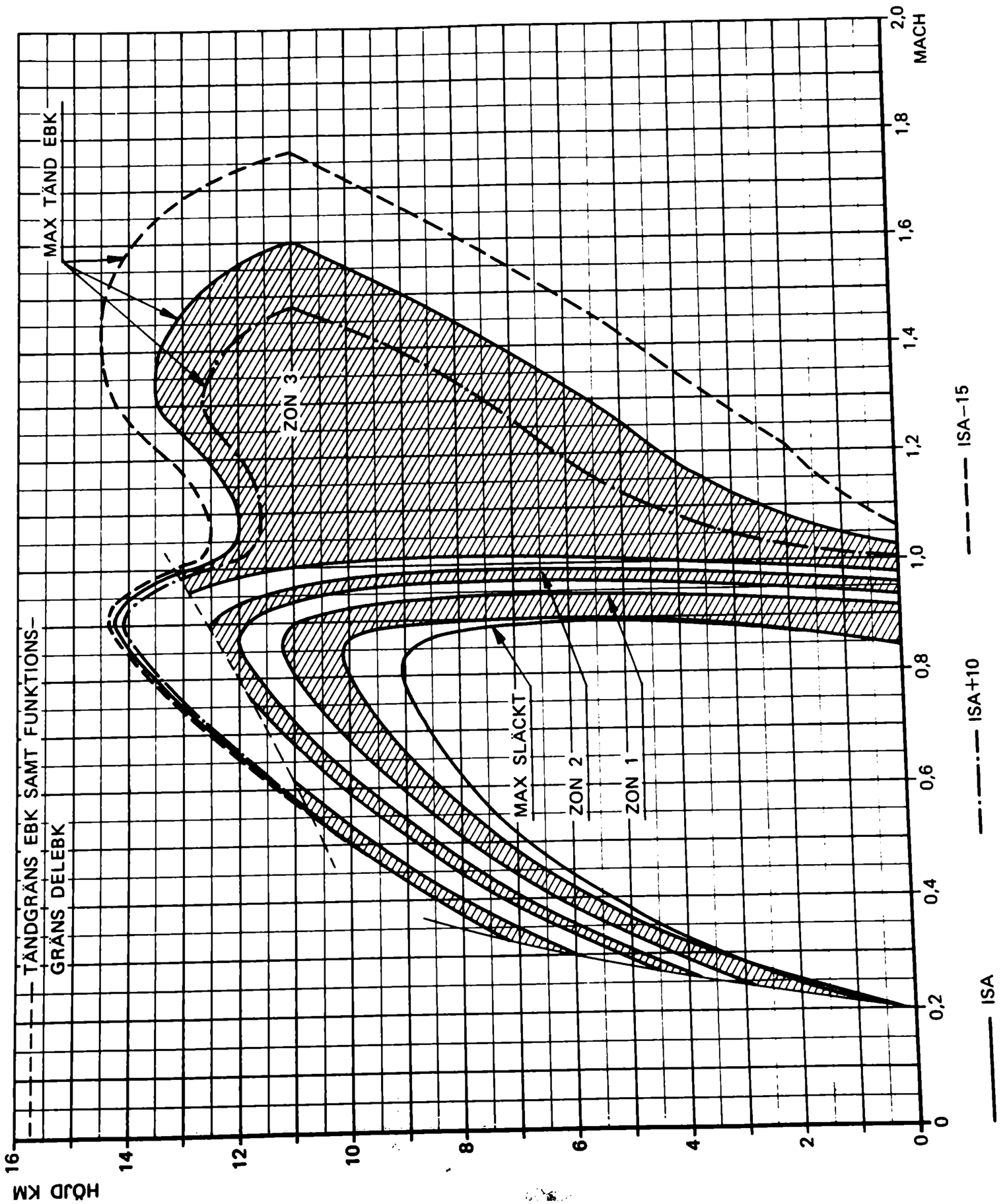
**LASTFAKTOR 1,0**



# PLANFLYKT

**LASTALTERNATIV GRUPP 2**
**VARIERAT MOTORPÅDRAG**

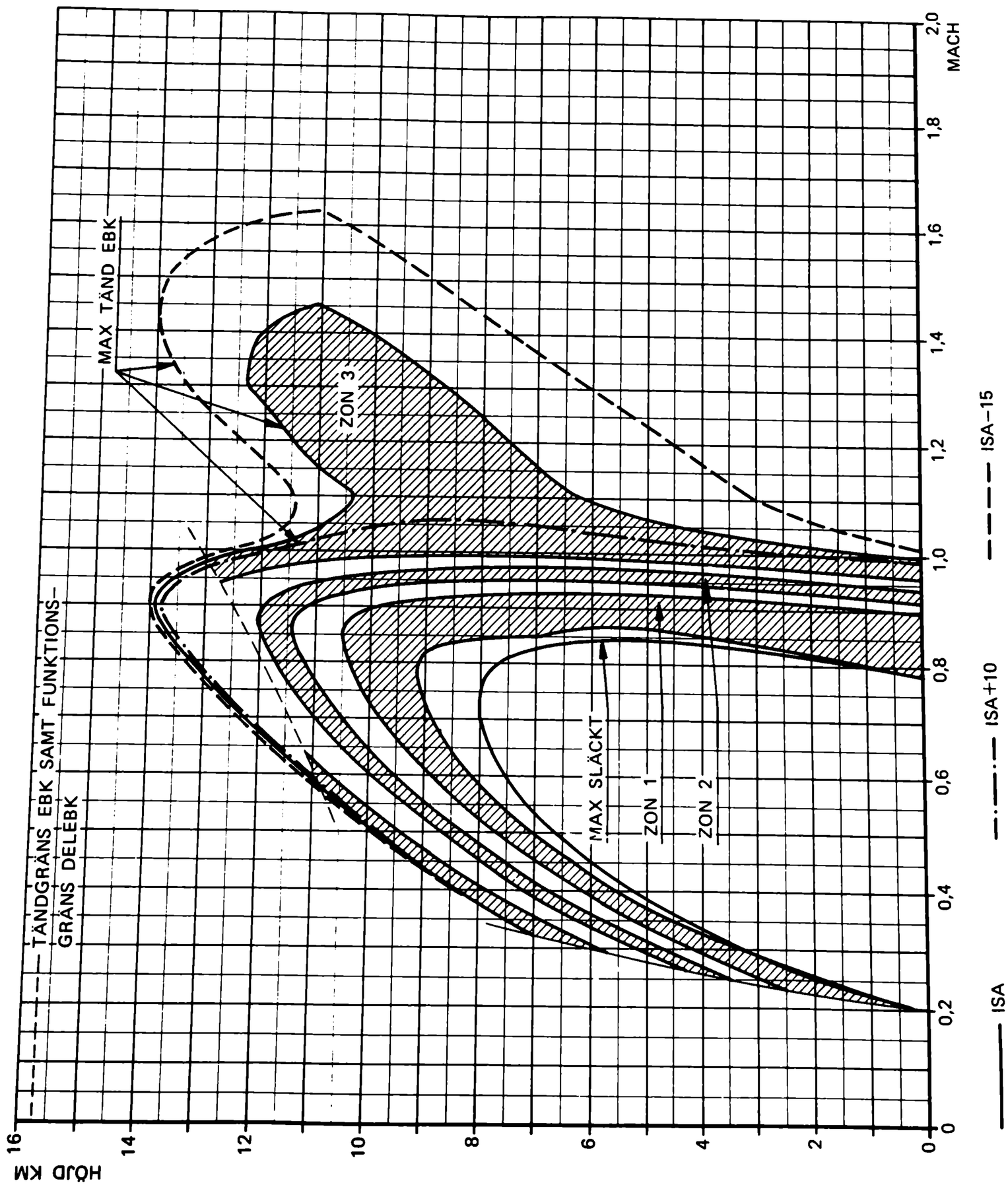
**LASTFAKTOR 1,0**



# PLANFLYKT

**LASTALTERNATIV GRUPP 3**
**VARIERAT MOTORPÅDRAG**

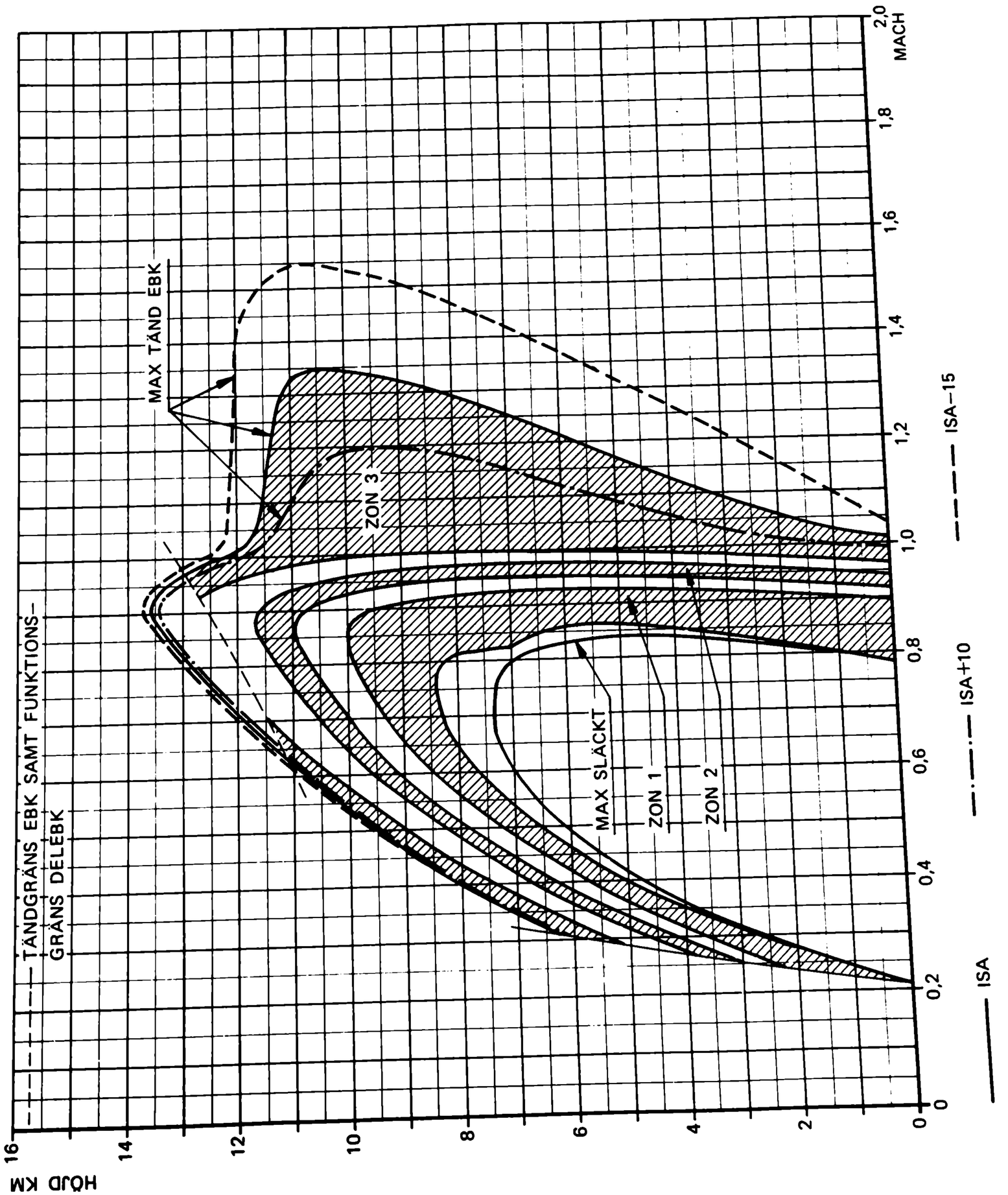
LASTFAKTOR 1,0



# PLANFLYKT

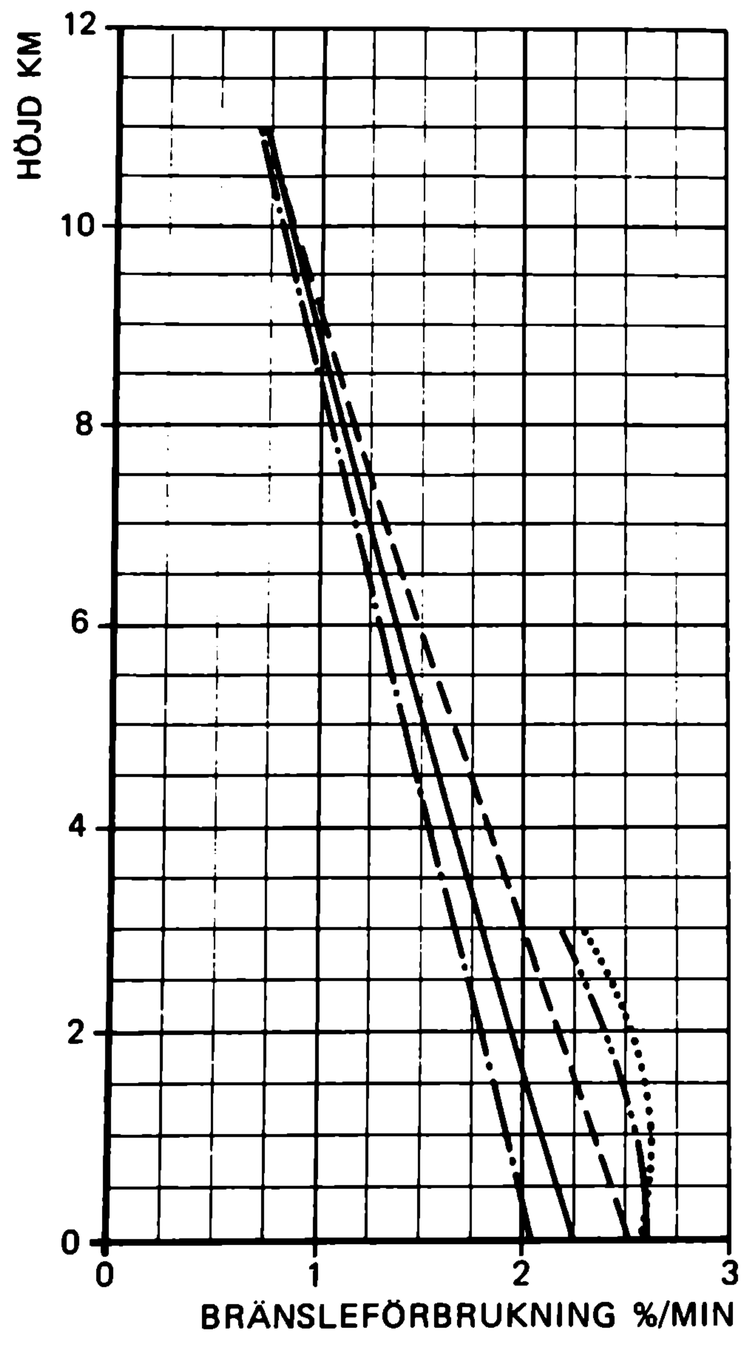
**LASTALTERNATIV GRUPP 4**
**VARIERAT MOTORPÅDRAG**

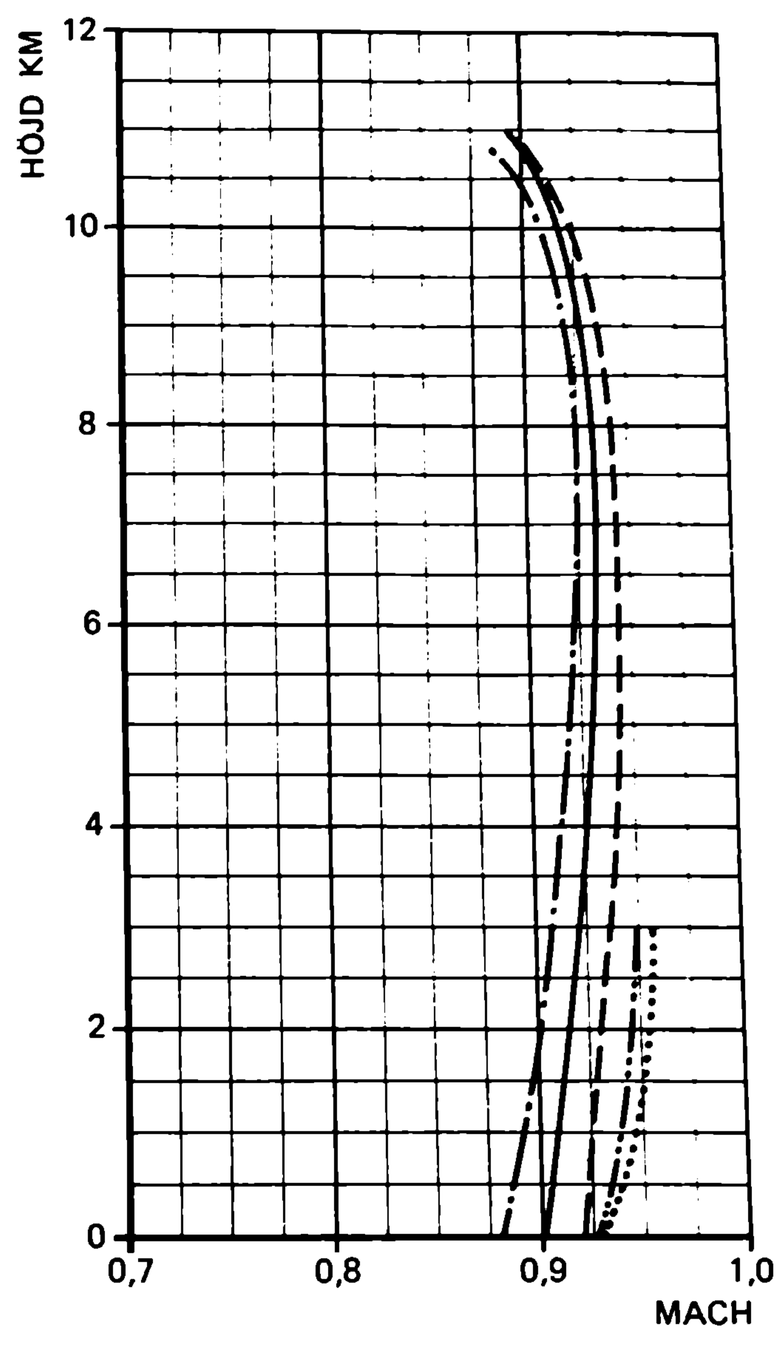
**LASTFAKTOR 1,0**



# PLANFLYKT

**RENT FPL**
**MAX SLÄCKT**

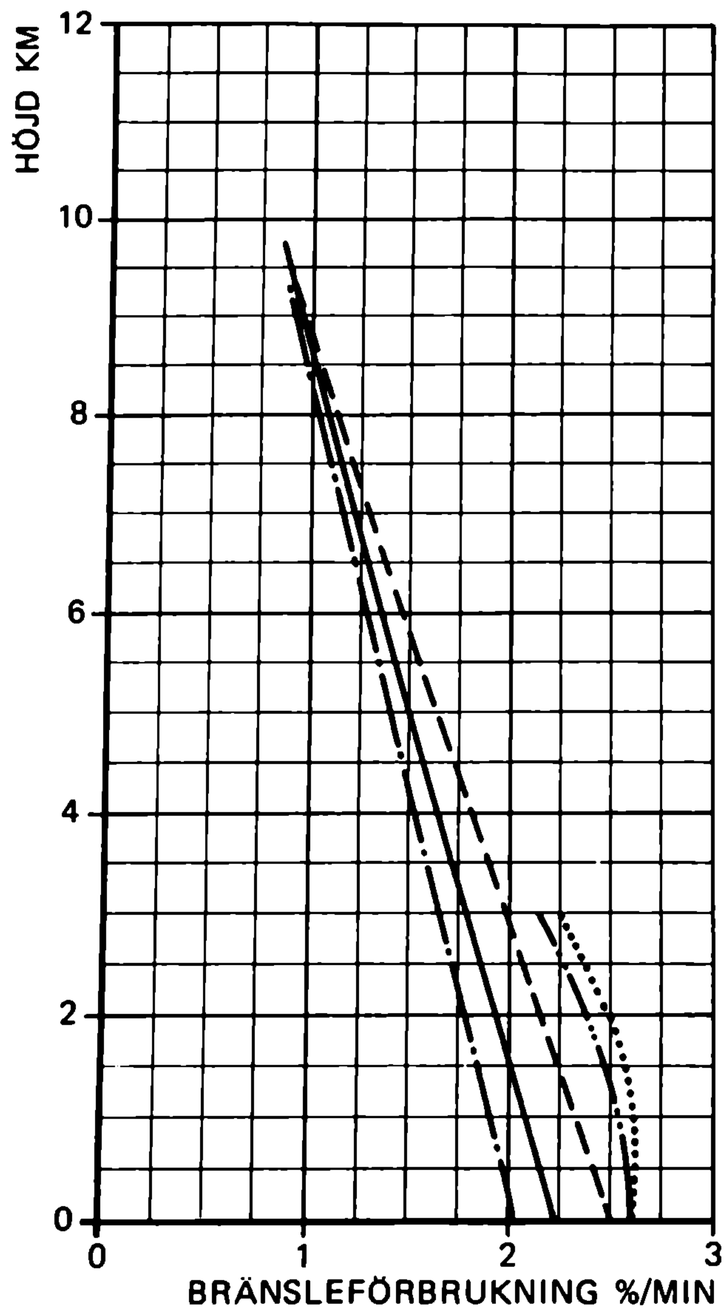


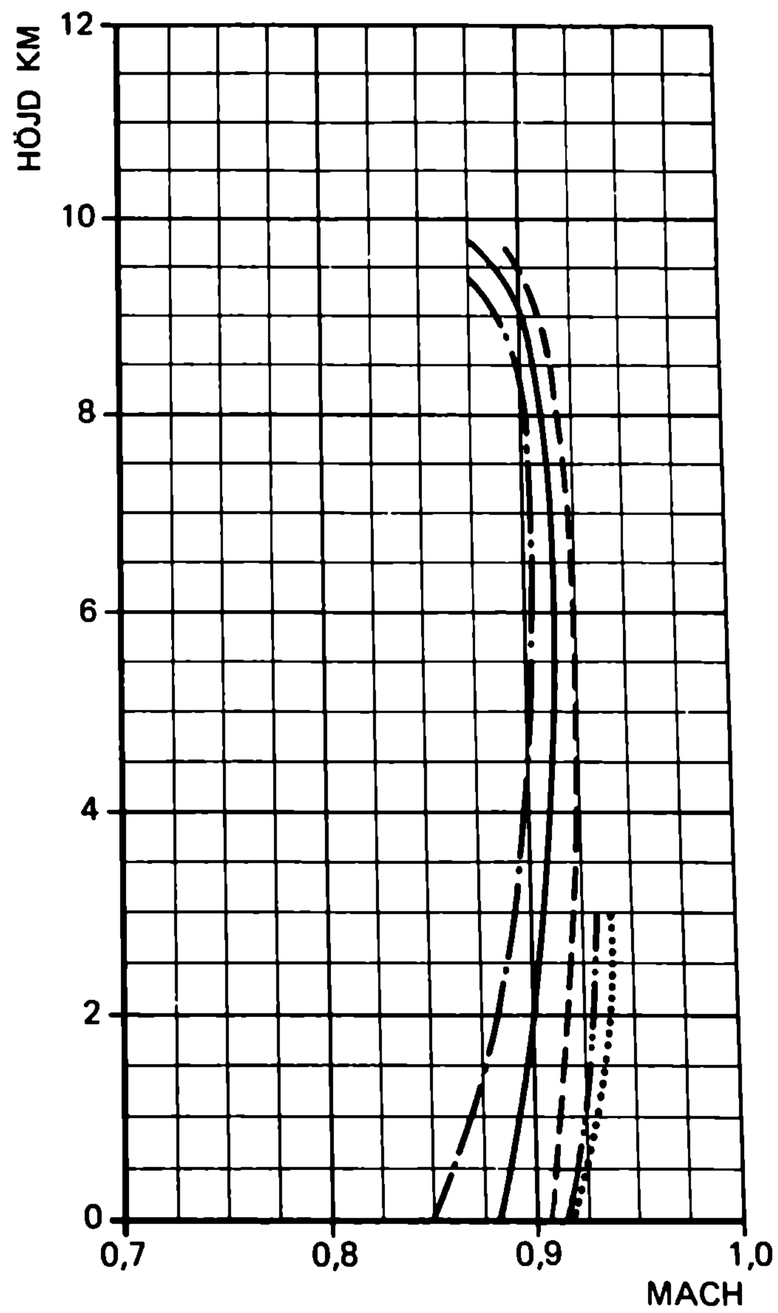




ISA ————
ISA+10 —·—·—
ISA−15 — — — —
ISA−30 —··—··—
ISA−45 ·····

# PLANFLYKT

**LASTALTERNATIV GRUPP 1**
**MAX SLÄCKT**

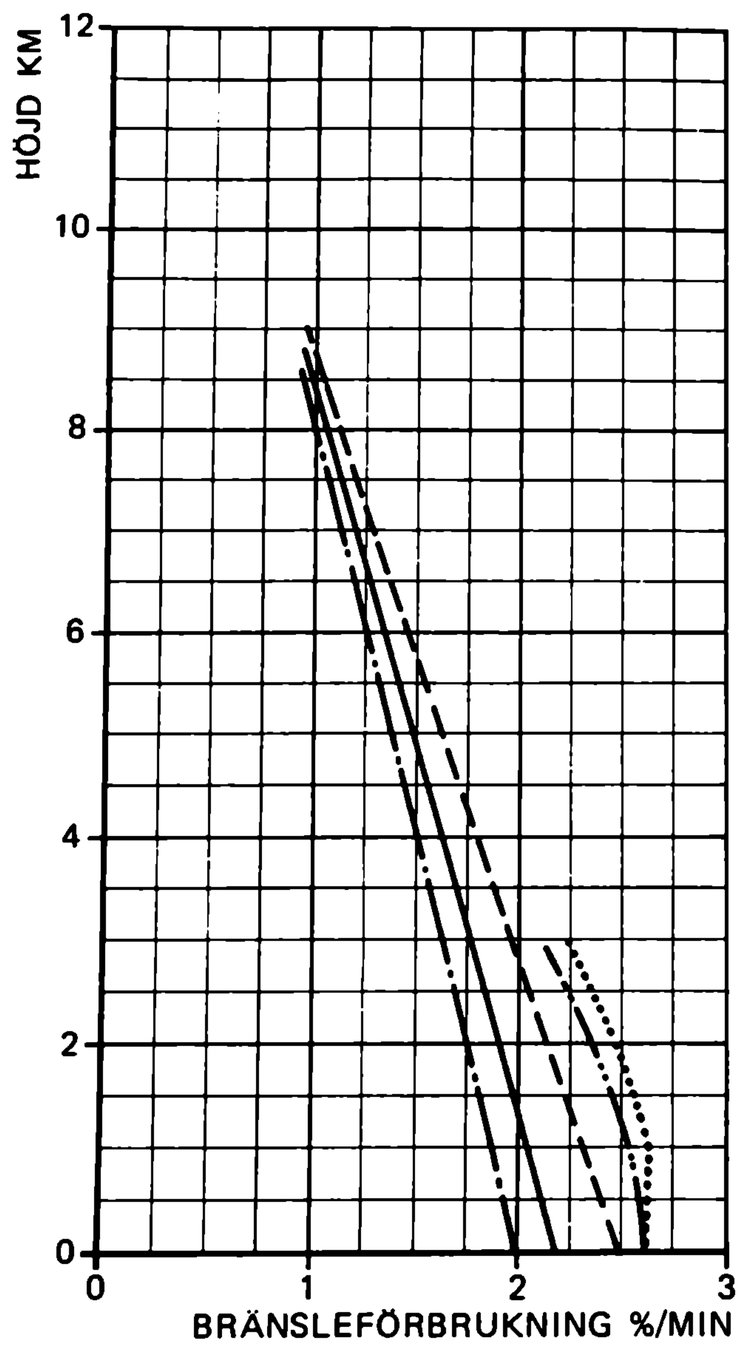


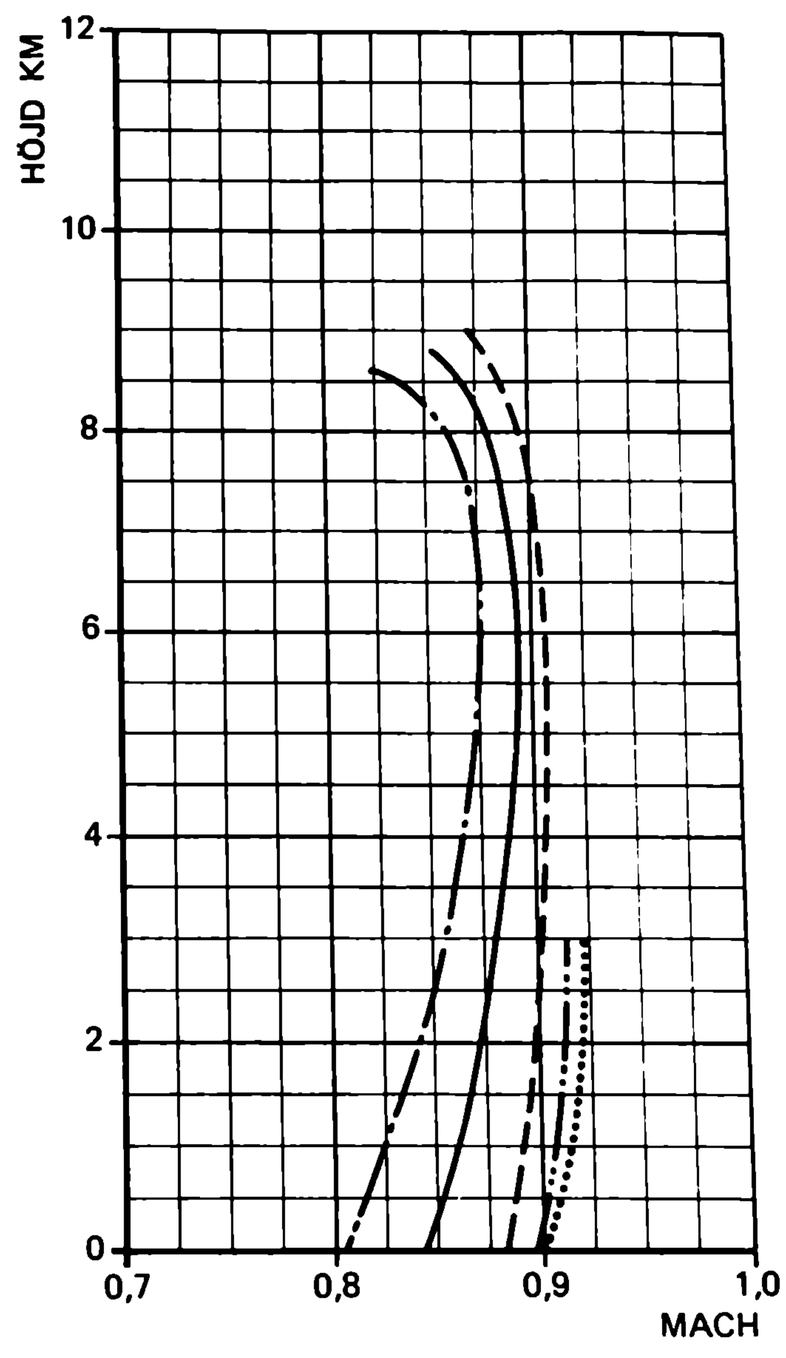




ISA
ISA+10
ISA−15
ISA−30
ISA−45

# PLANFLYKT

**LASTALTERNATIV GRUPP 2**
**MAX SLÄCKT**

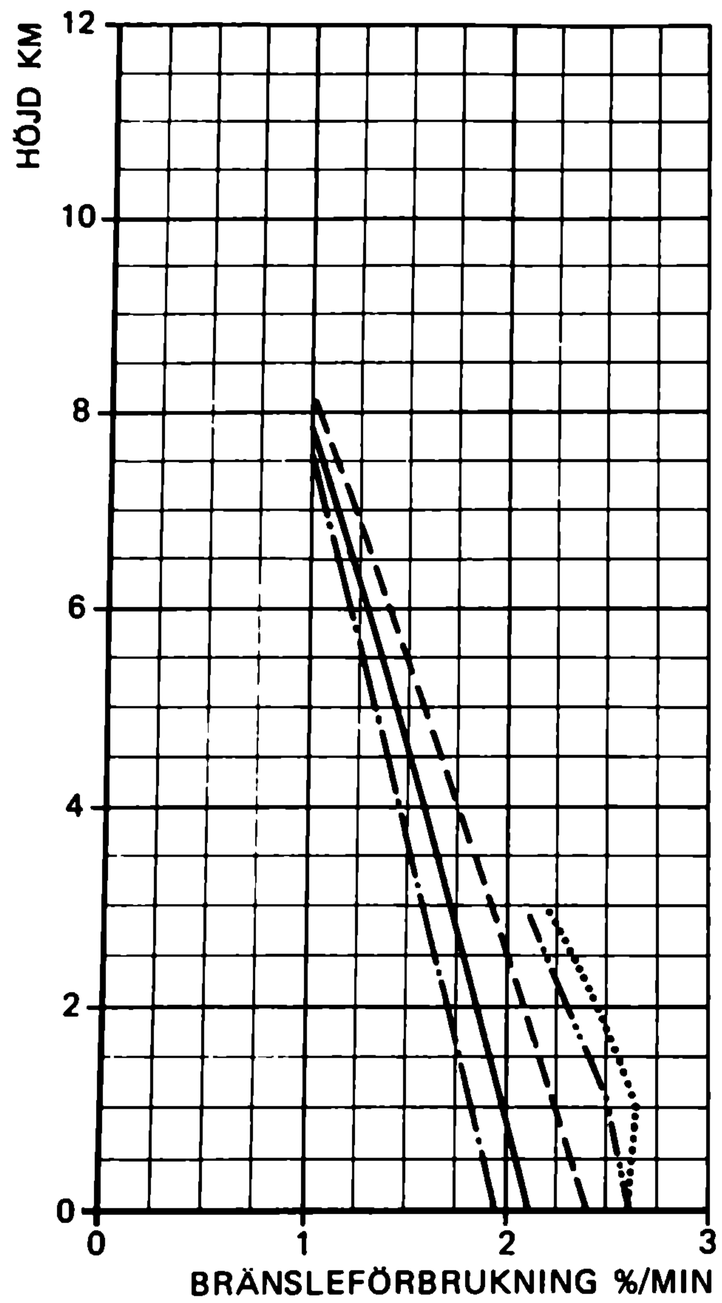


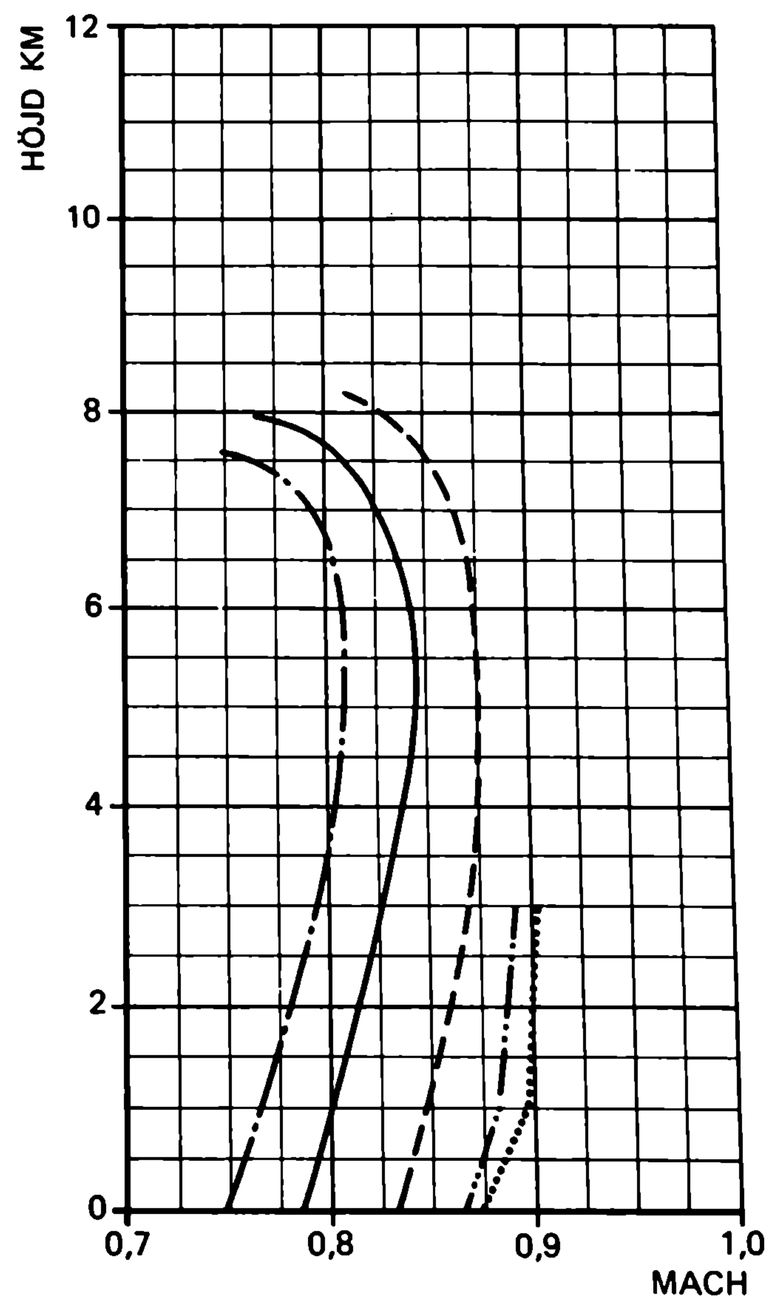




ISA
ISA+10
ISA−15
ISA−30
ISA−45

# PLANFLYKT

**LASTALTERNATIV GRUPP 3**
**MAX SLÄCKT**

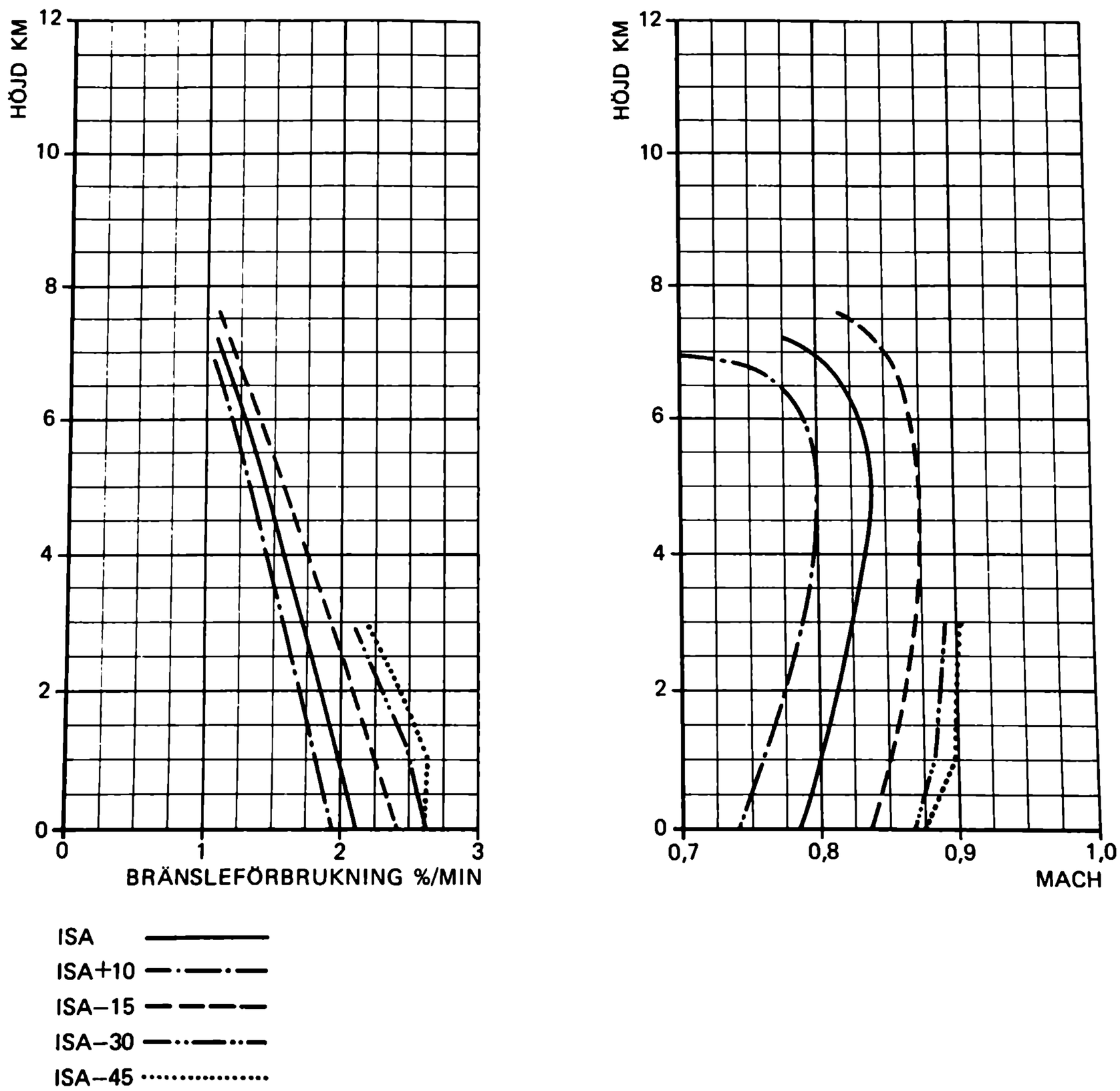



ISA ————
ISA+10 —·—·—
ISA−15 — — — —
ISA−30 —··—··—
ISA−45 ·····

# PLANFLYKT

**LASTALTERNATIV GRUPP 4**
**MAX SLÄCKT**

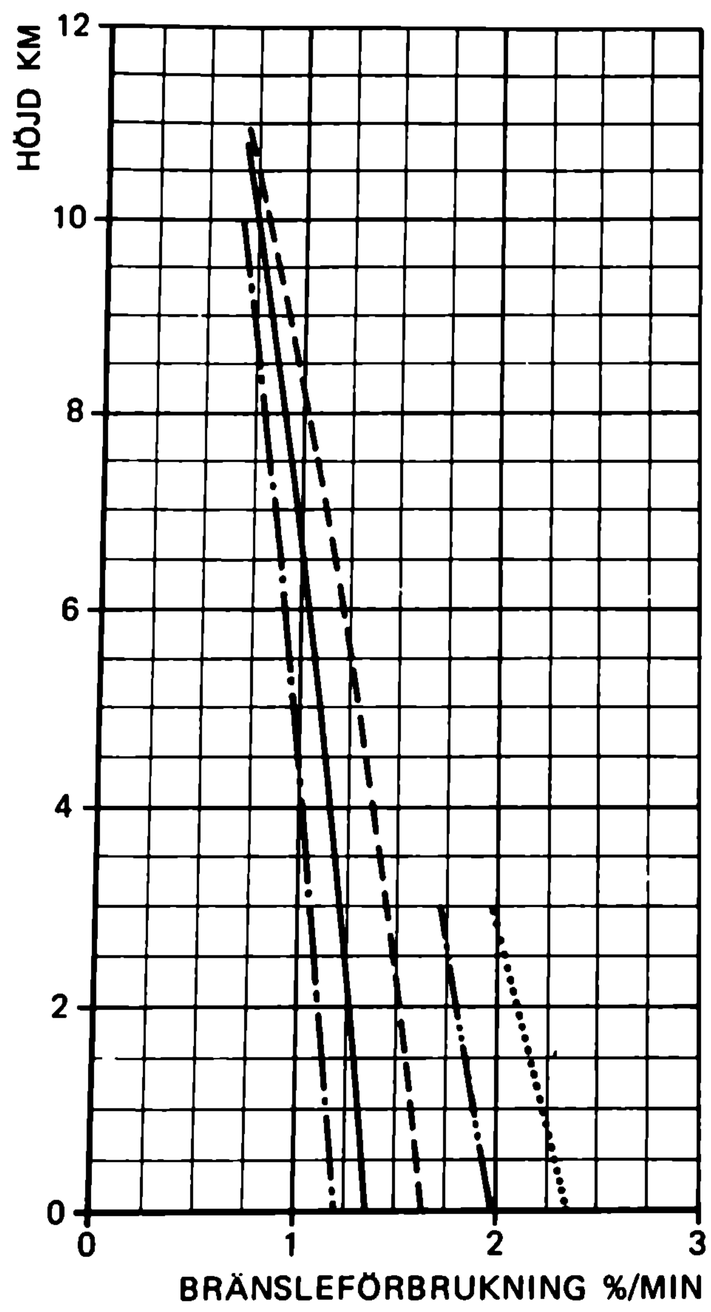


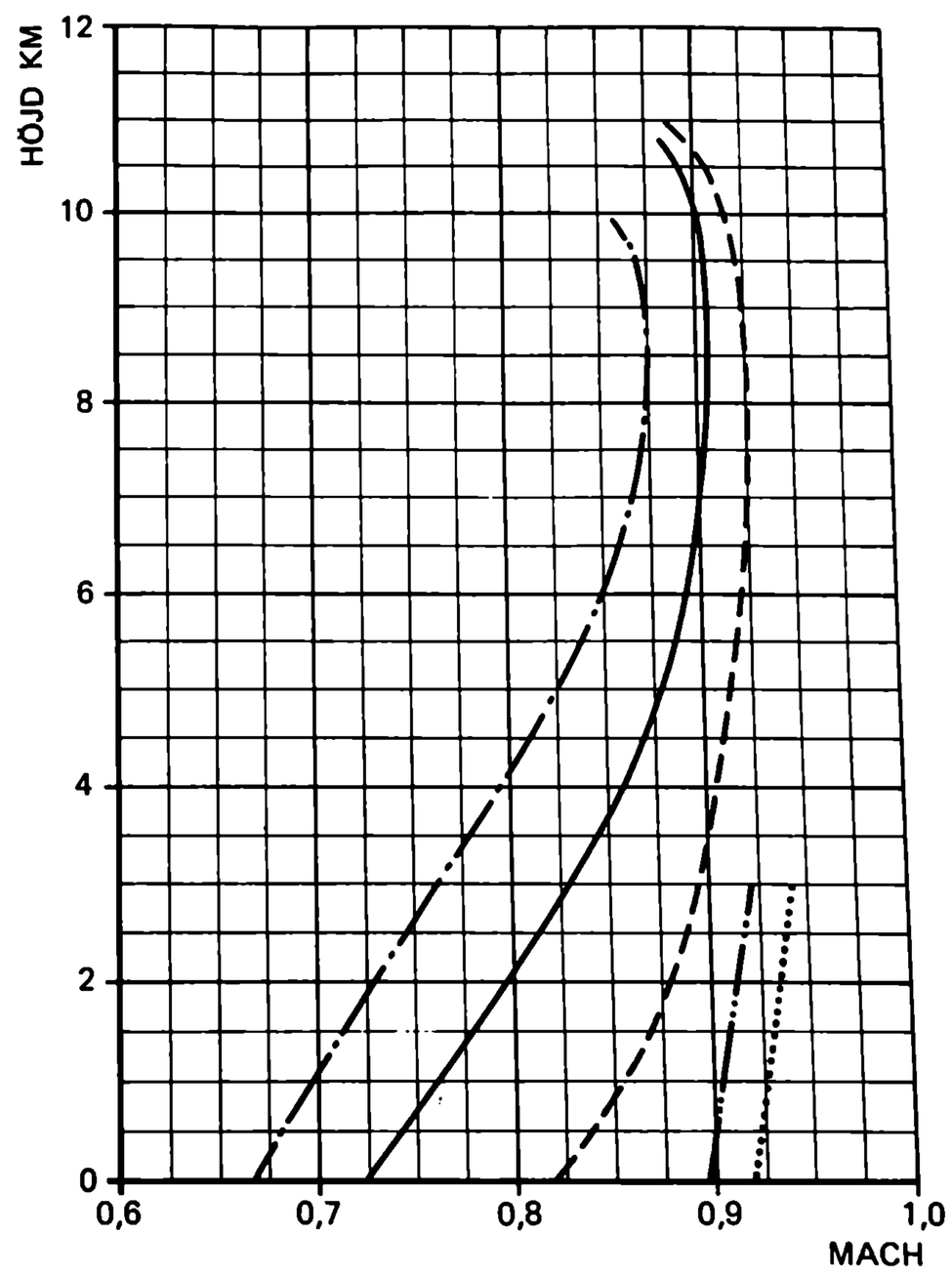
HEMLIG
Se titelbladet
2016-01-21



# PLANFLYKT

**RENT FPL**
**92 % VARV ($N_{HT}$)**

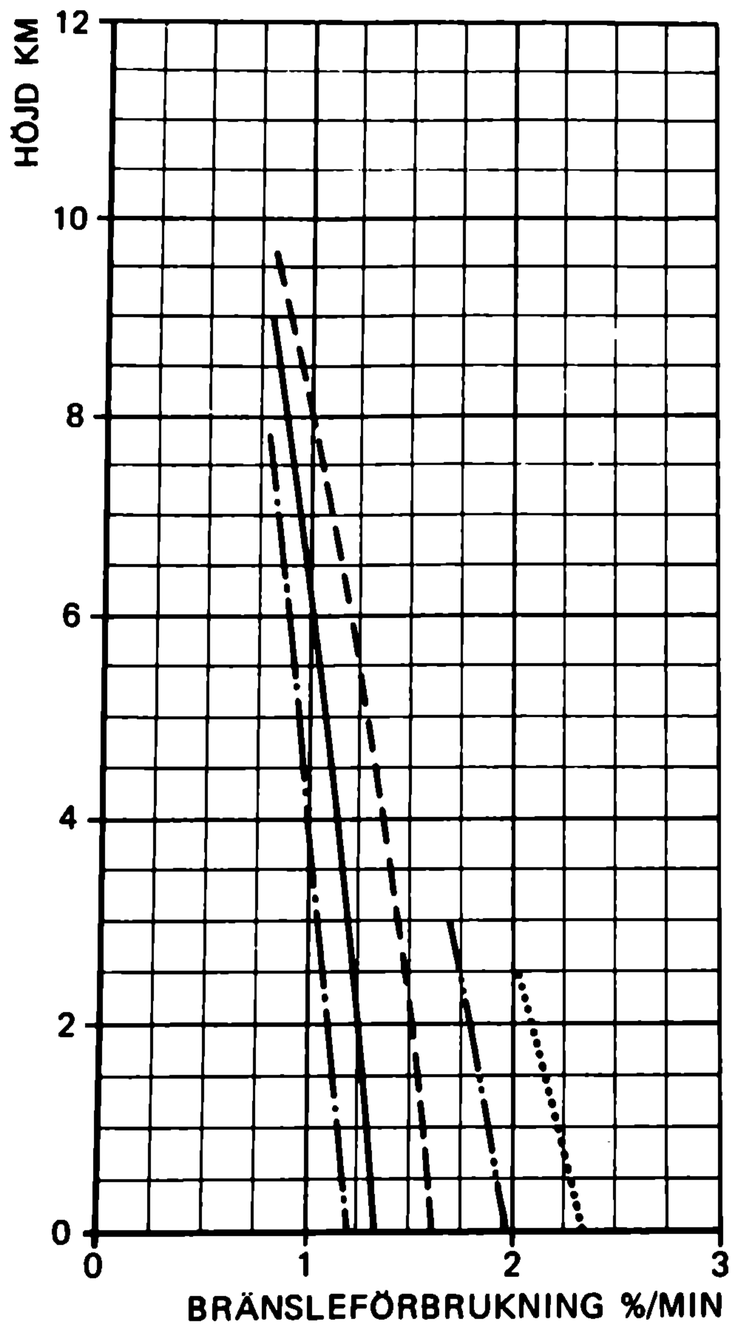


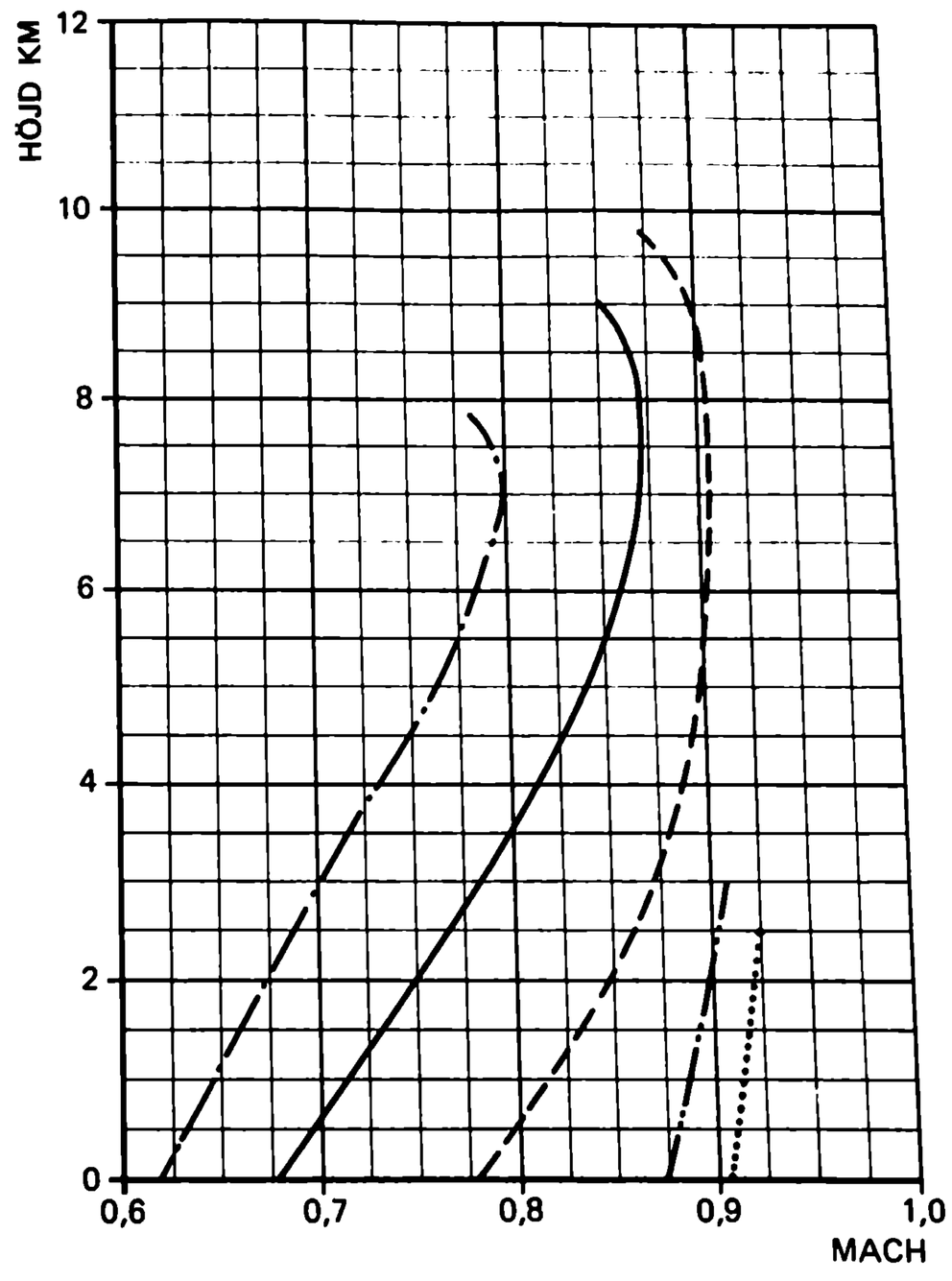




ISA ————
ISA+10 —·—·—
ISA−15 — — — —
ISA−30 —··—··—
ISA−45 ·····

# PLANFLYKT

**LASTALTERNATIV GRUPP 1**
**92 % VARV ($N_{HT}$)**

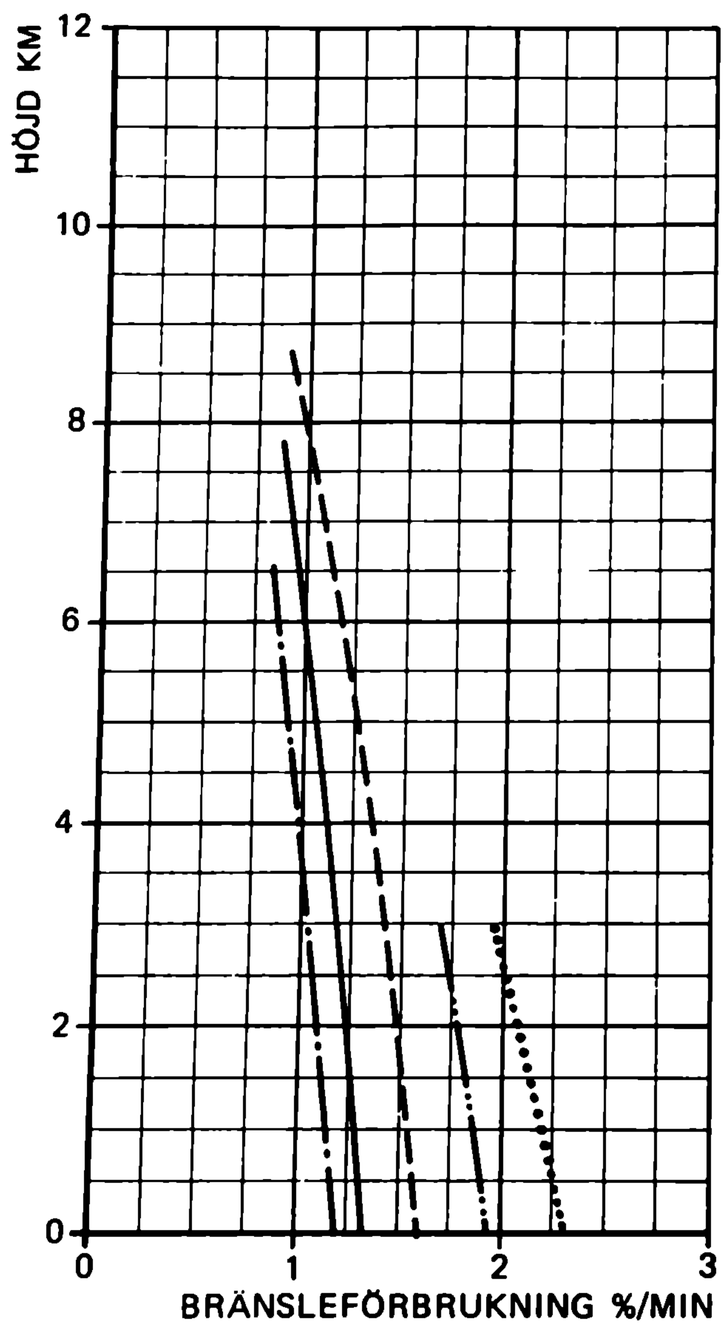


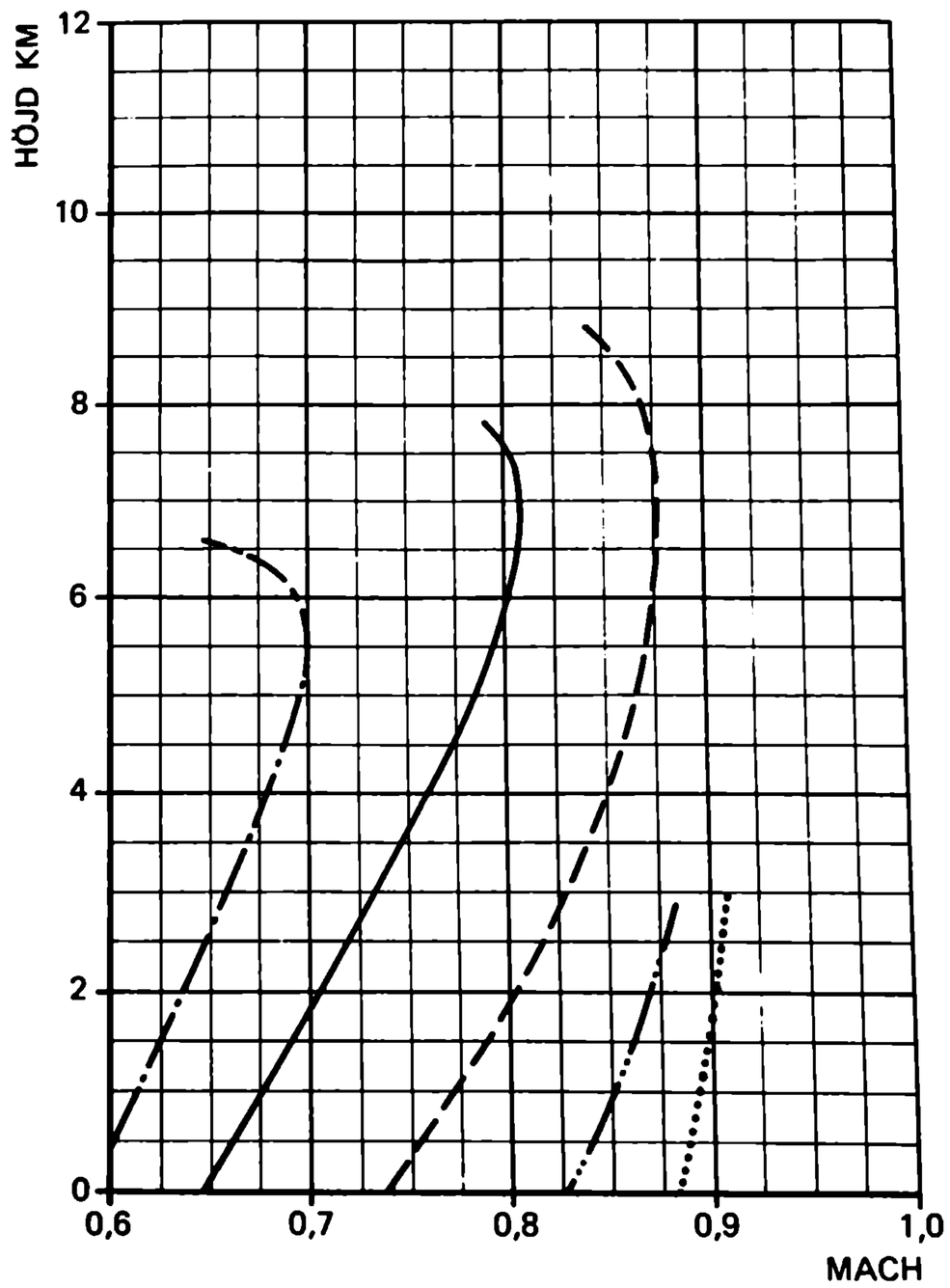




ISA ————
ISA+10 —·—·—
ISA−15 — — — —
ISA−30 —··—··—
ISA−45 ·····

# PLANFLYKT

**LASTALTERNATIV GRUPP 2**
**92 % VARV ($N_{HT}$)**

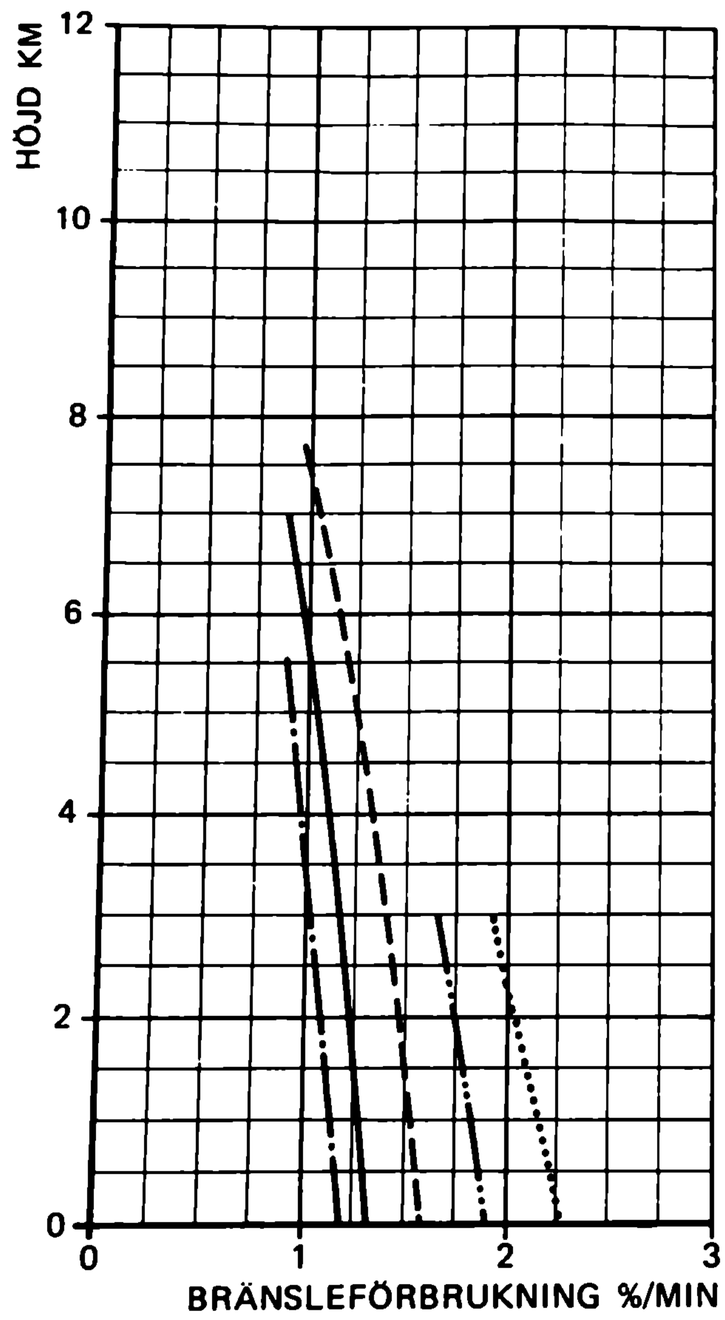


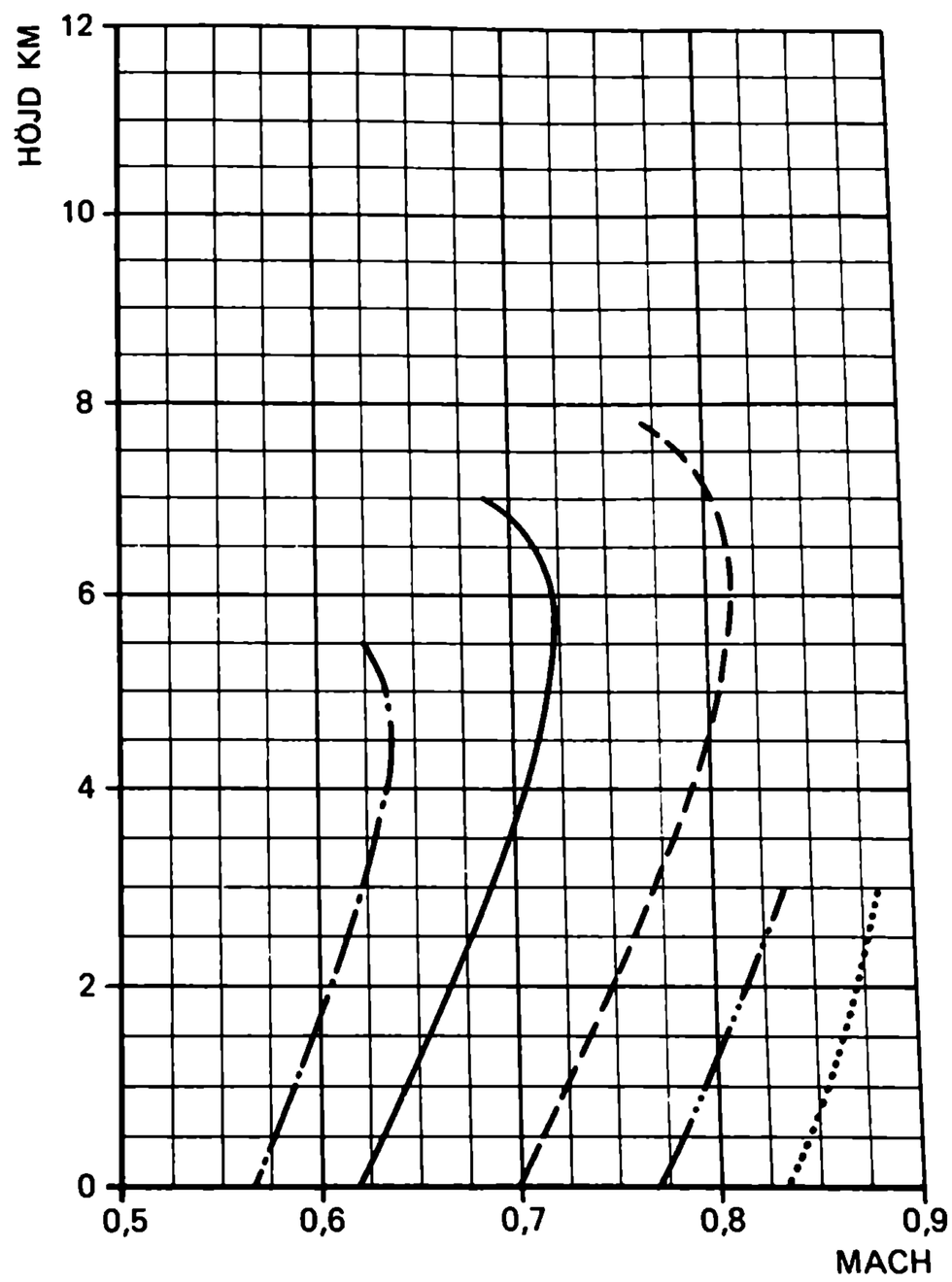




ISA
ISA+10
ISA−15
ISA−30
ISA−45

# PLANFLYKT

**LASTALTERNATIV GRUPP 3**
**92 % VARV ($N_{HT}$)**

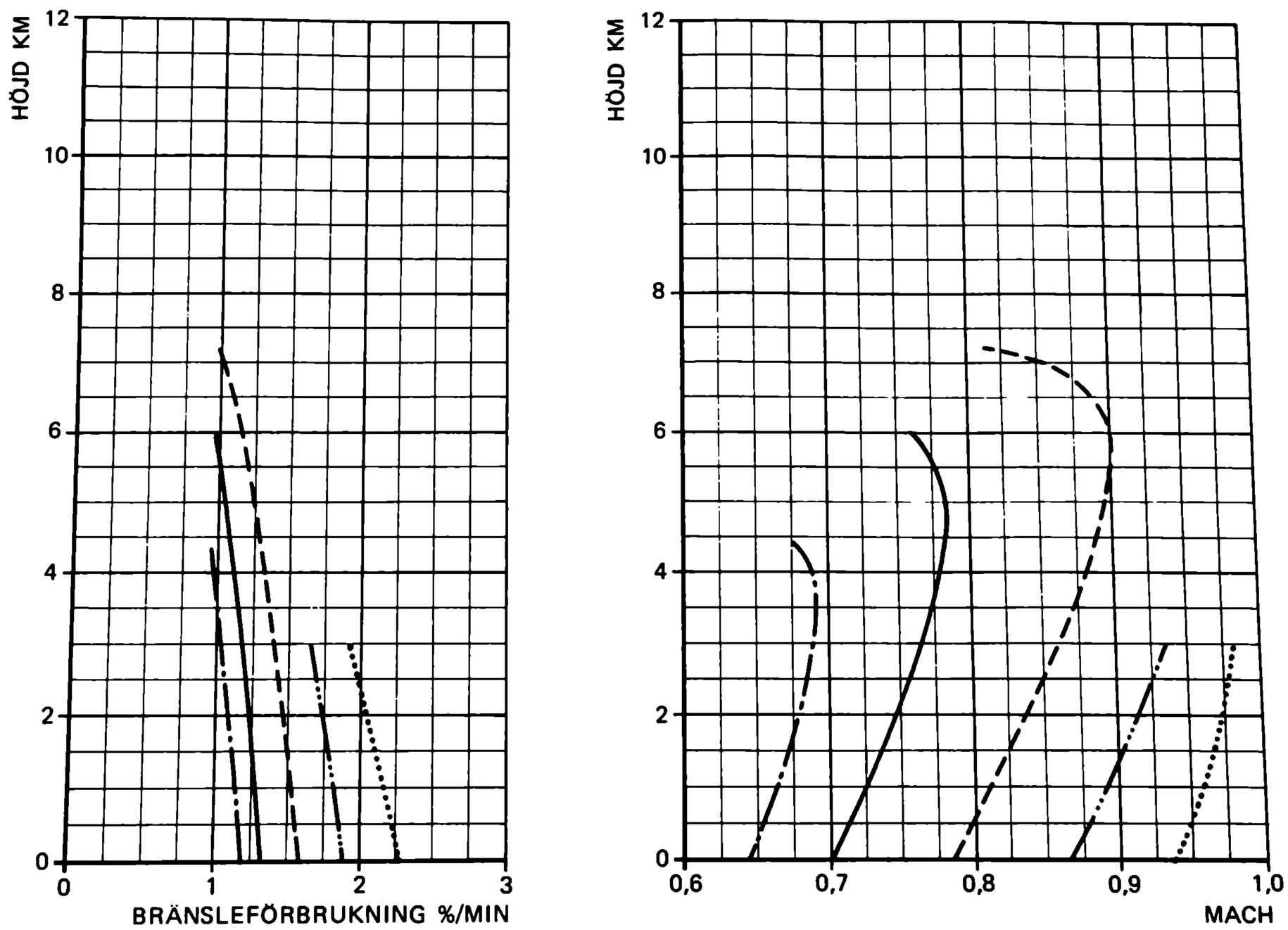



ISA
ISA+10
ISA−15
ISA−30
ISA−45

# PLANFLYKT

**LASTALTERNATIV GRUPP 4**
**92 % VARV ($N_{HT}$)**



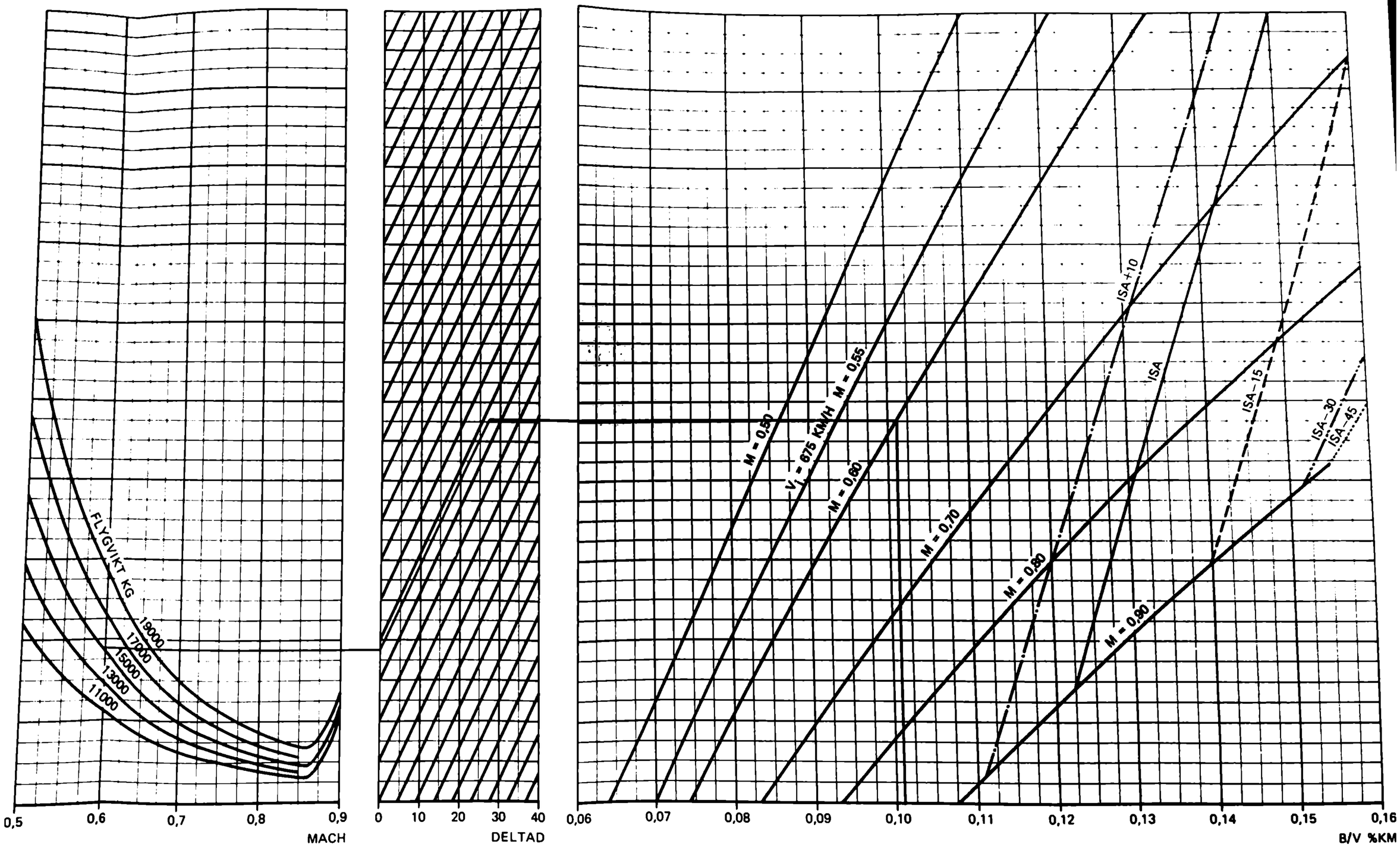

ISA ————
ISA+10 —·—·—
ISA–15 — — — —
ISA–30 —··—··—
ISA–45 ·····

# KILOMETERFÖRBRUKNING

## PROCENT BRÄNSLE PER KM FLYGSTRÄCKA

SLÄCKT EBK
HÖJD 0 KM

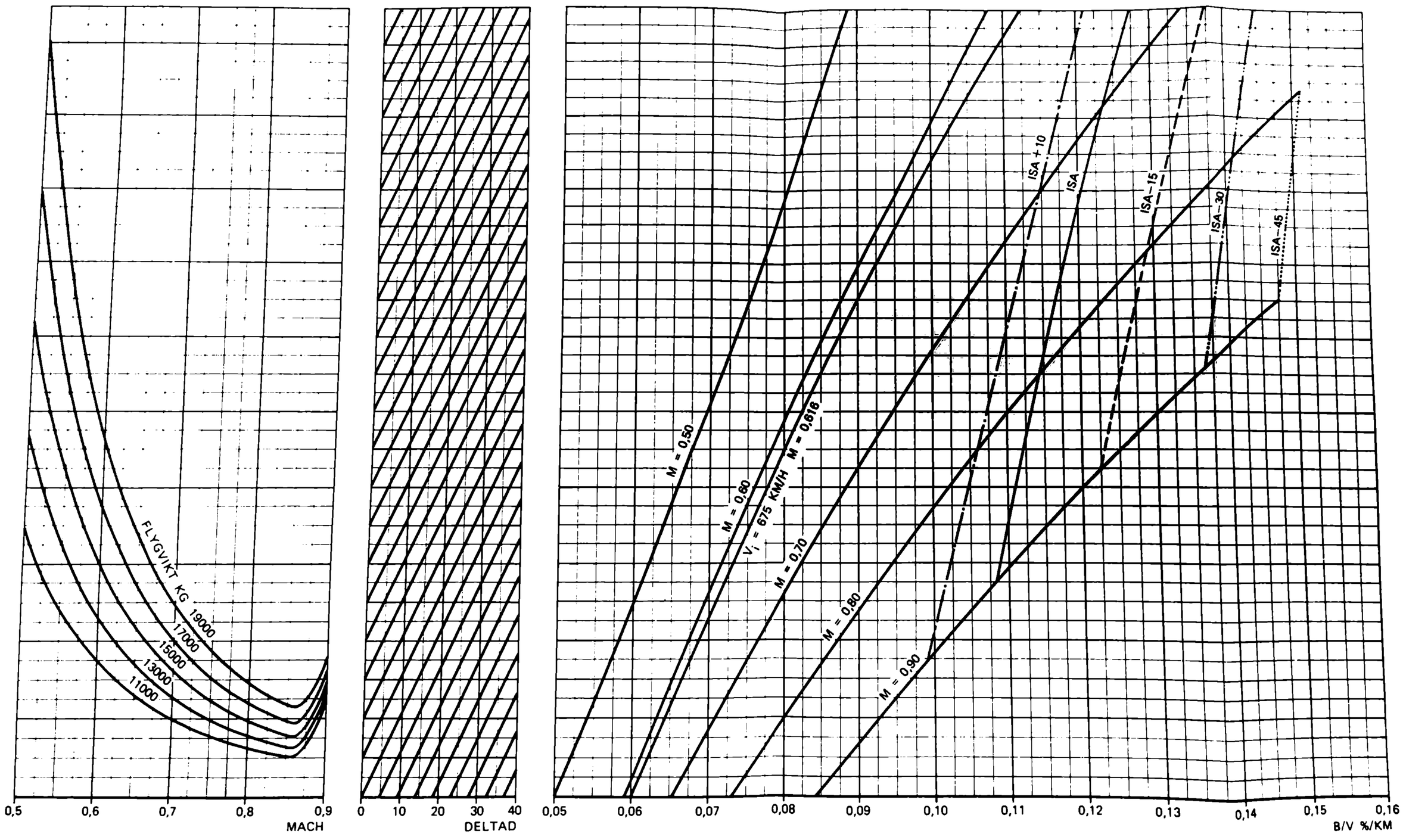
Linjer med atmosfärsbeteckning gäller begränsning för max slackt EBK, för övrigt ringa atmosfärsinverkan



# KILOMETERFÖRBRUKNING

## PROCENT BRÄNNSLE PER KM FLYGSTRÄCKA

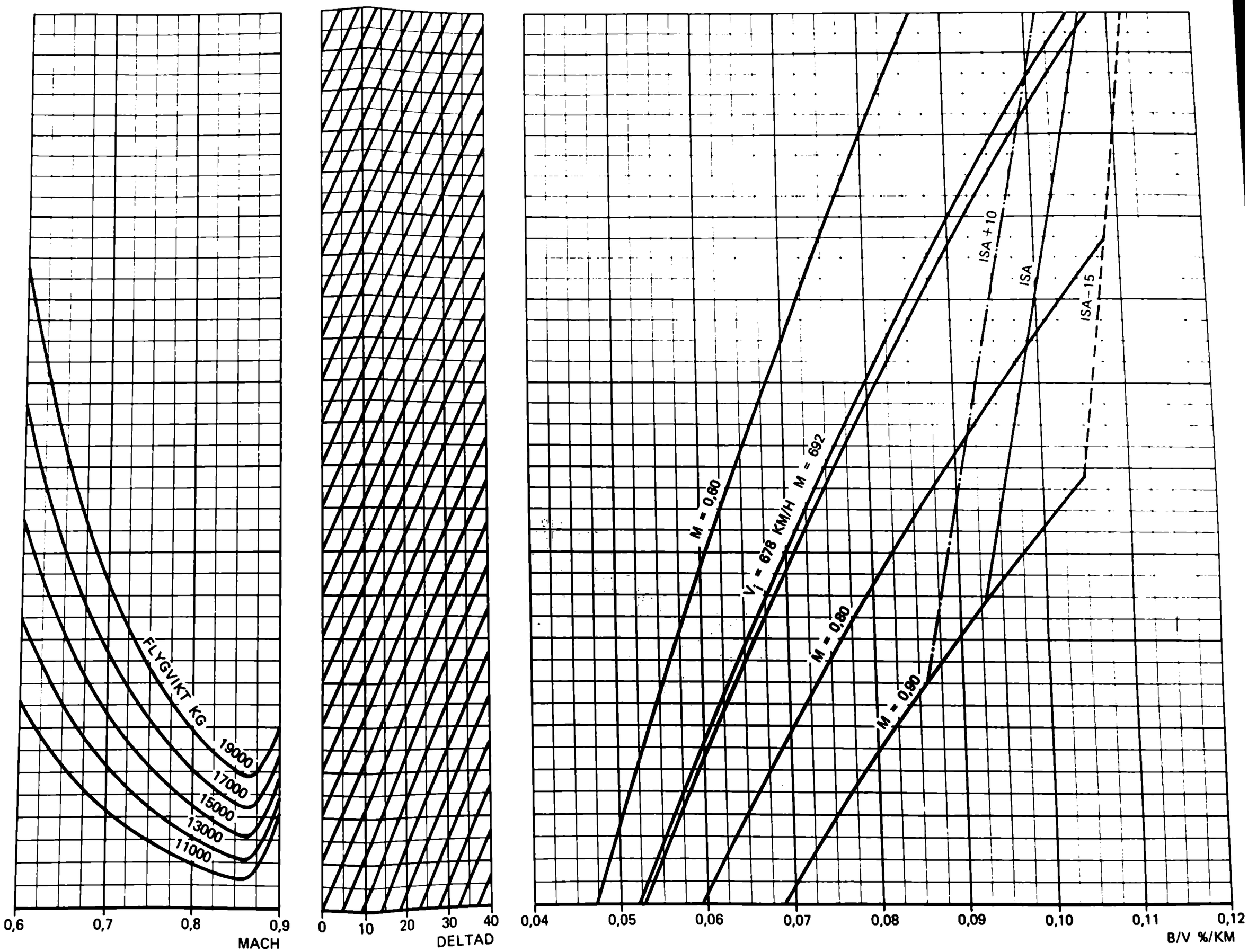
SLÄCKT EBK
HÖJD 2 KM



# KILOMETERFÖRBRUKNING

## PROCENT BRÄNSLE PER KM FLYGSTRÄCKA

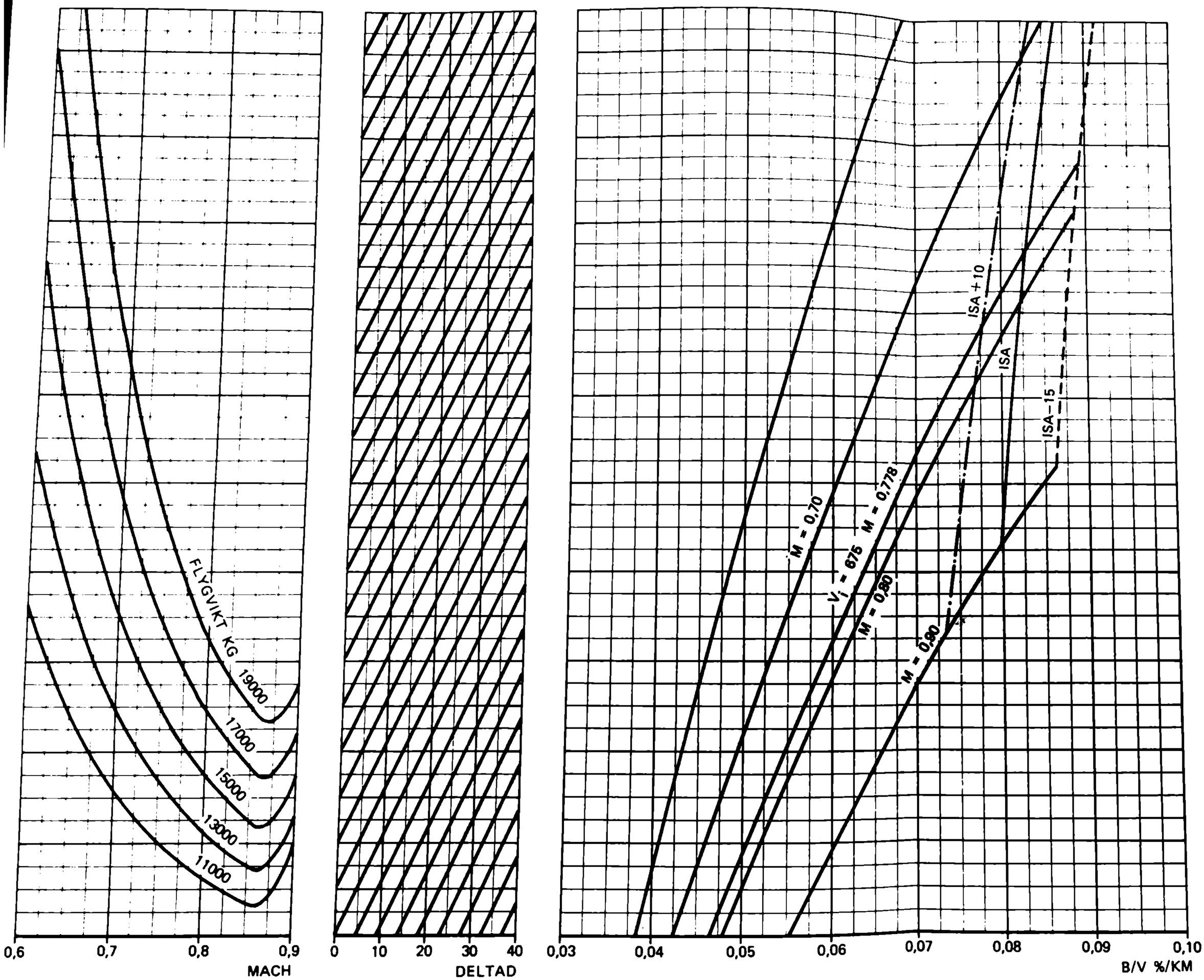
SLÄCKT EBK
HÖJD 4 KM



# KILOMETERFÖRBRUKNING

## PROCENT BRÄNSLE PER KM FLYGSTRÄCKA

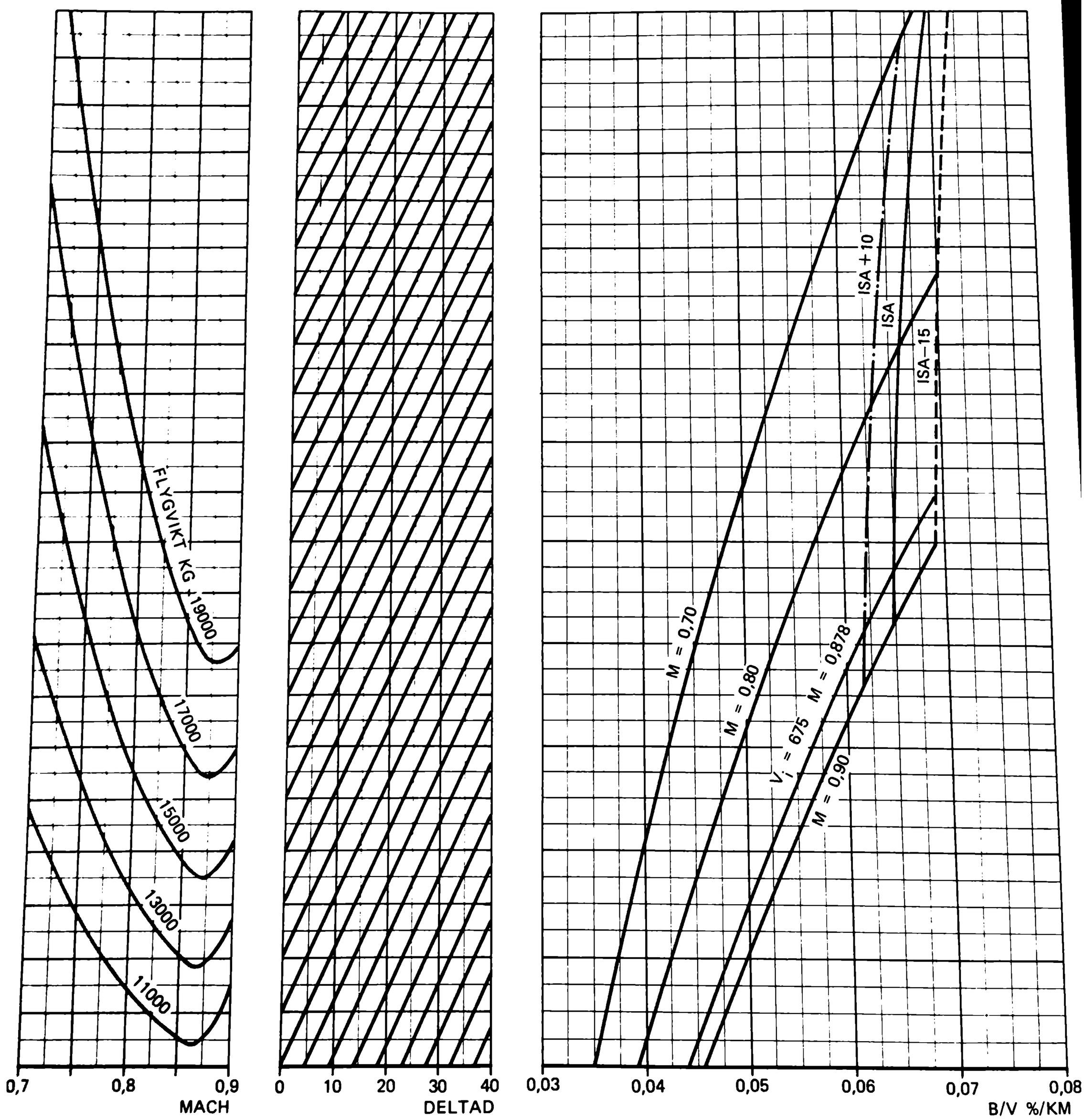
SLÄCKT EBK
HÖJD 6 KM



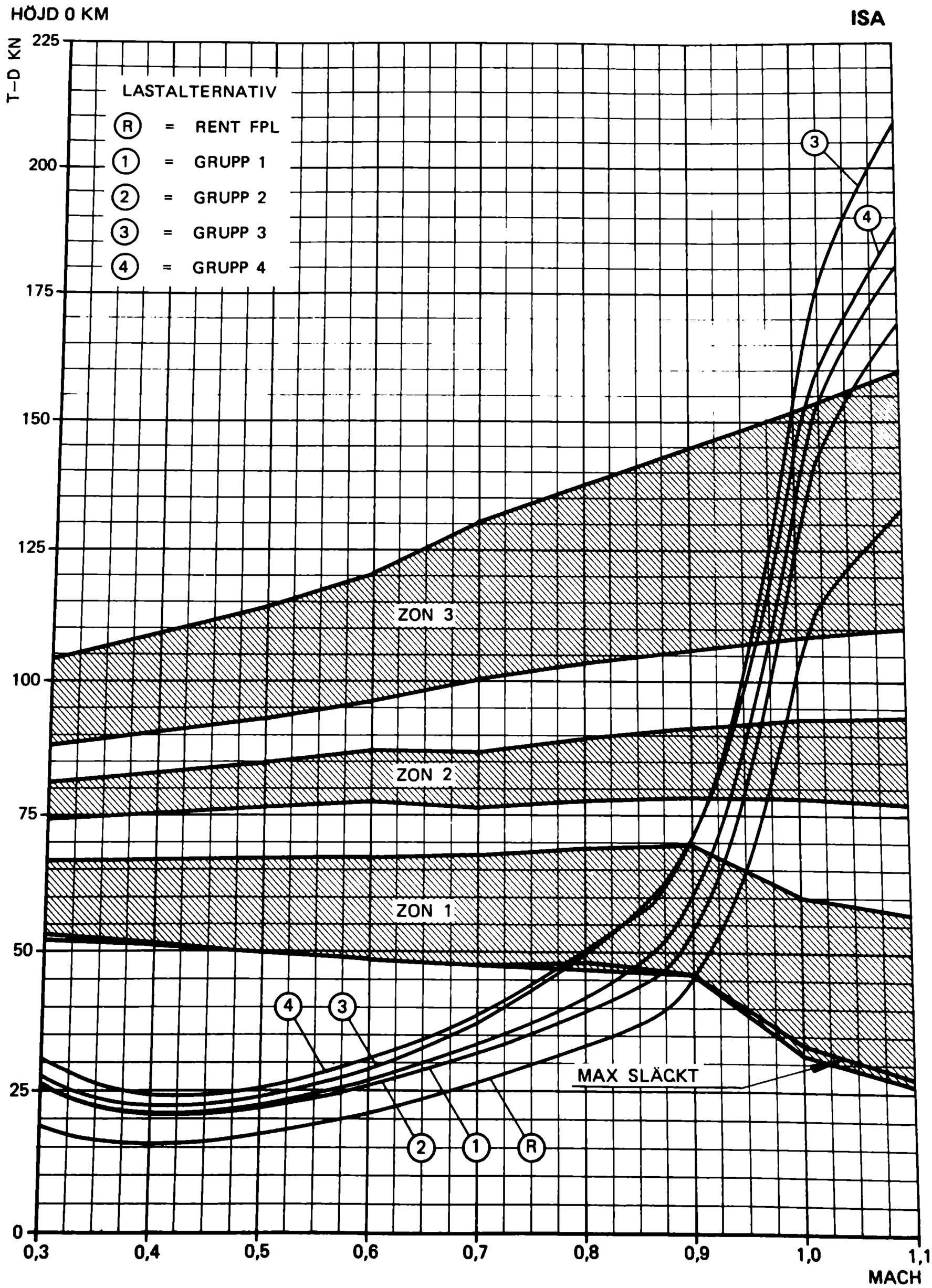
# KILOMETERFÖRBRUKNING

## PROCENT BRÄNSLE PER KM FLYGSTRÄCKA

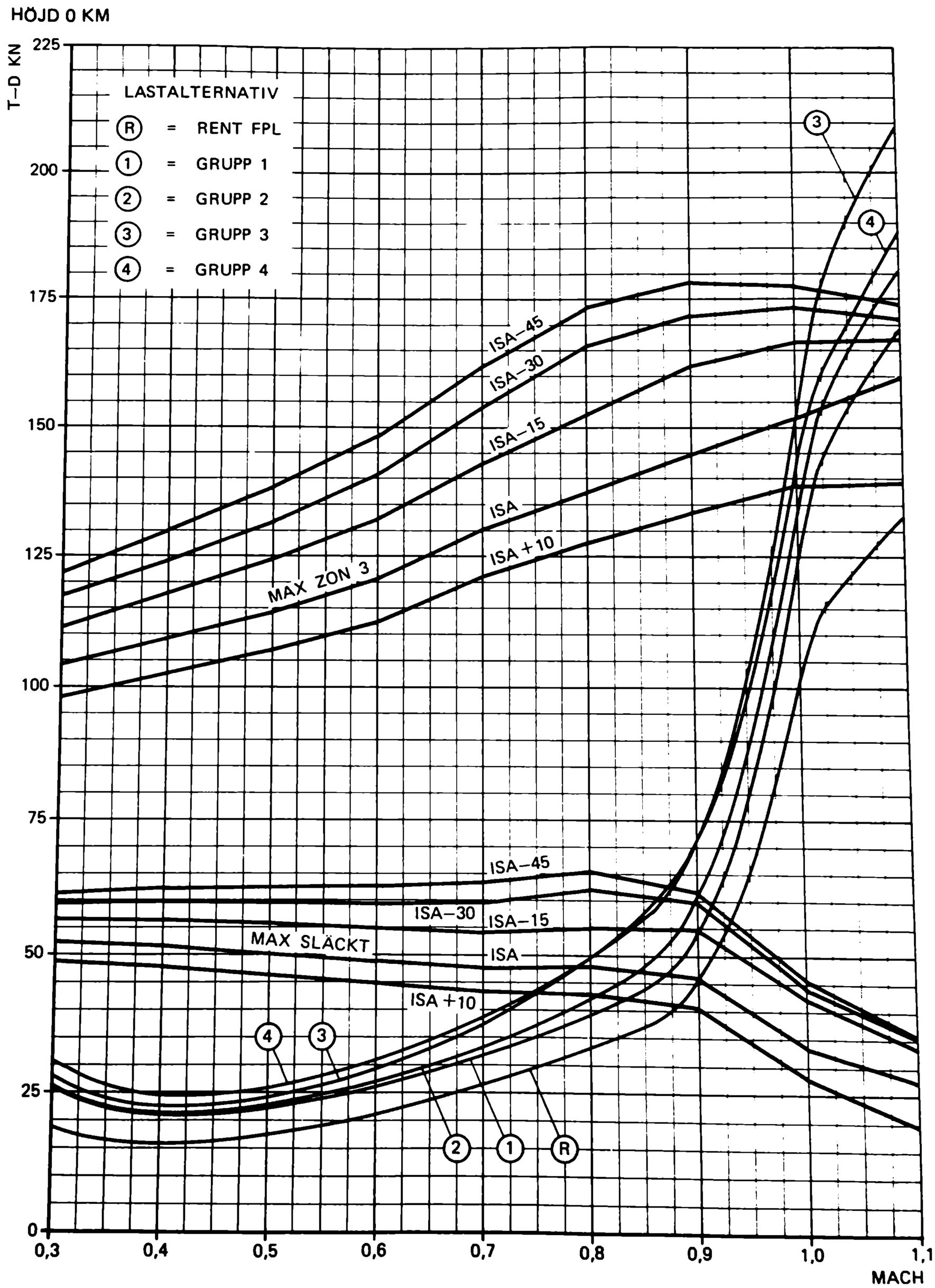
SLÄCKT EBK
HÖJD 8 KM



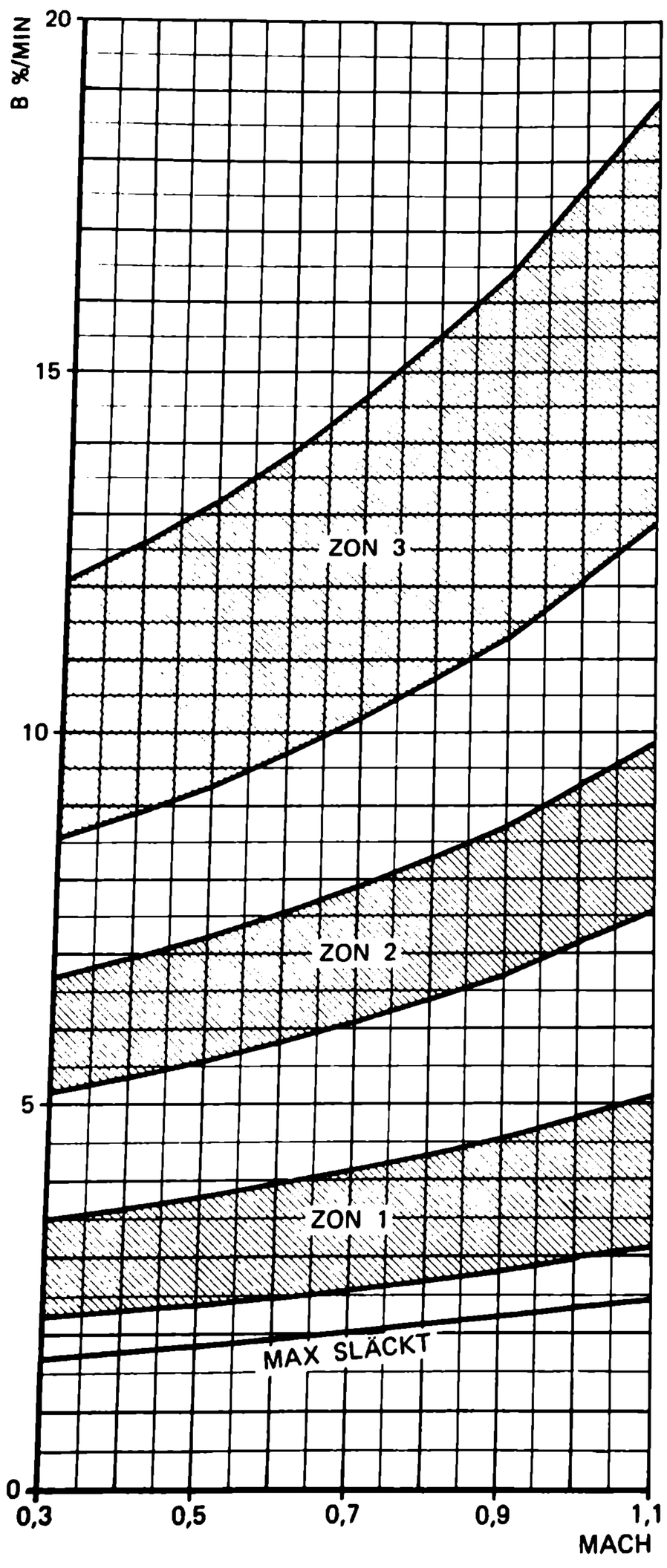
# MOTSTÅND — DRAGKRAFT

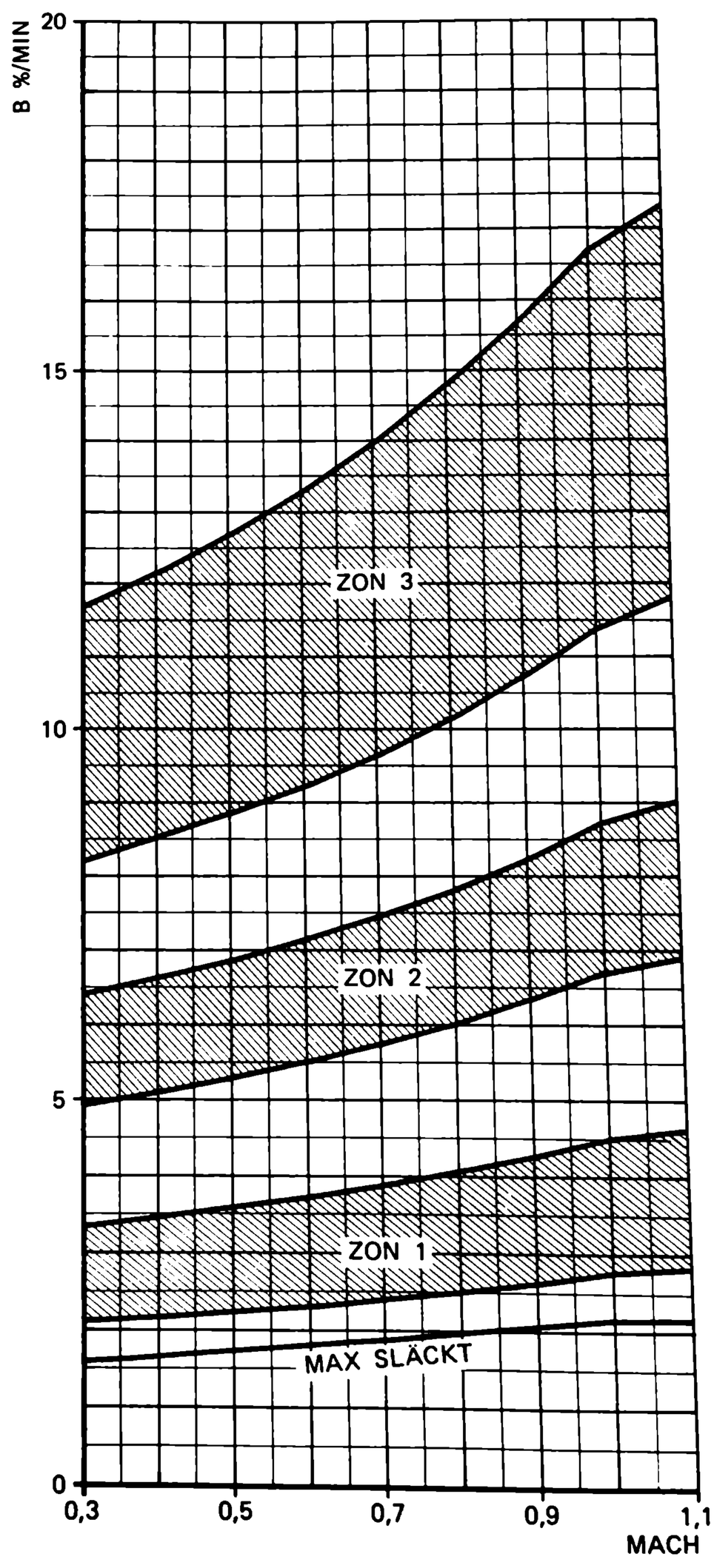


# MOTSTÅND — DRAGKRAFT

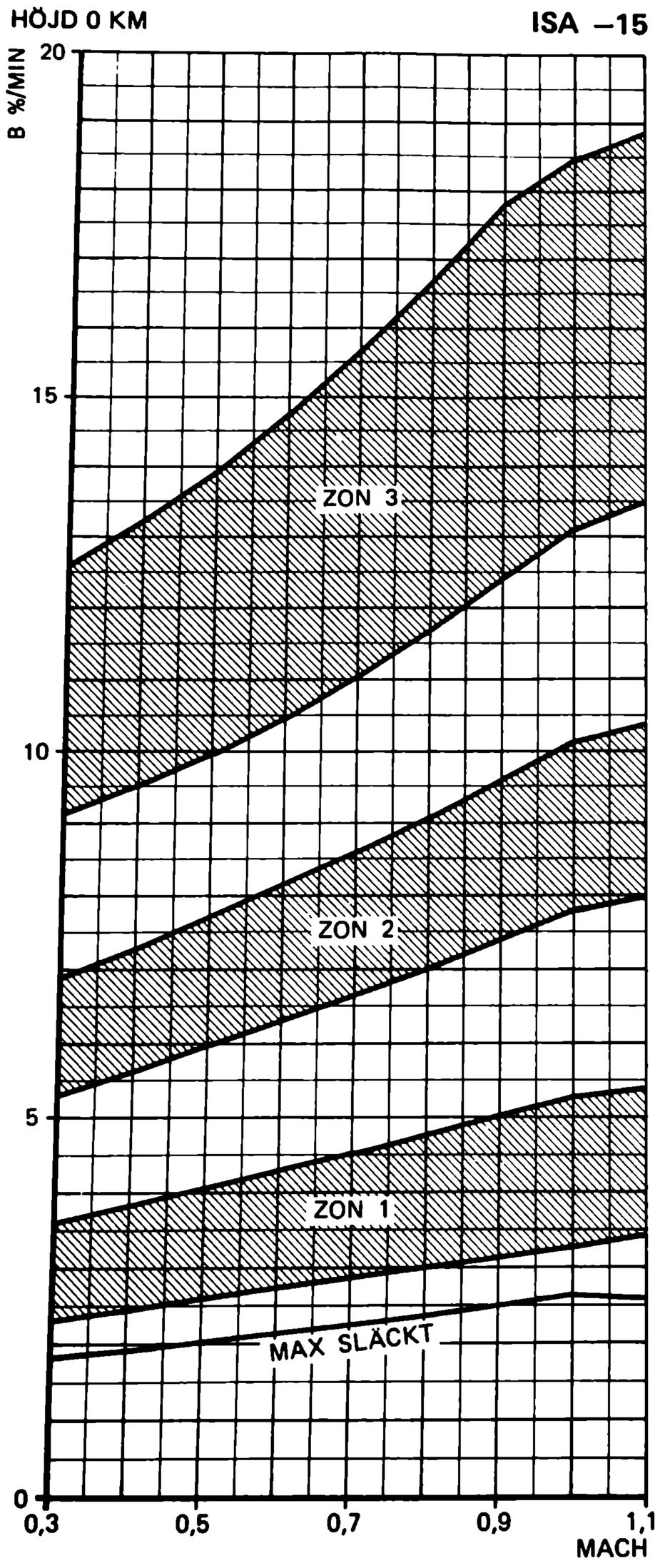


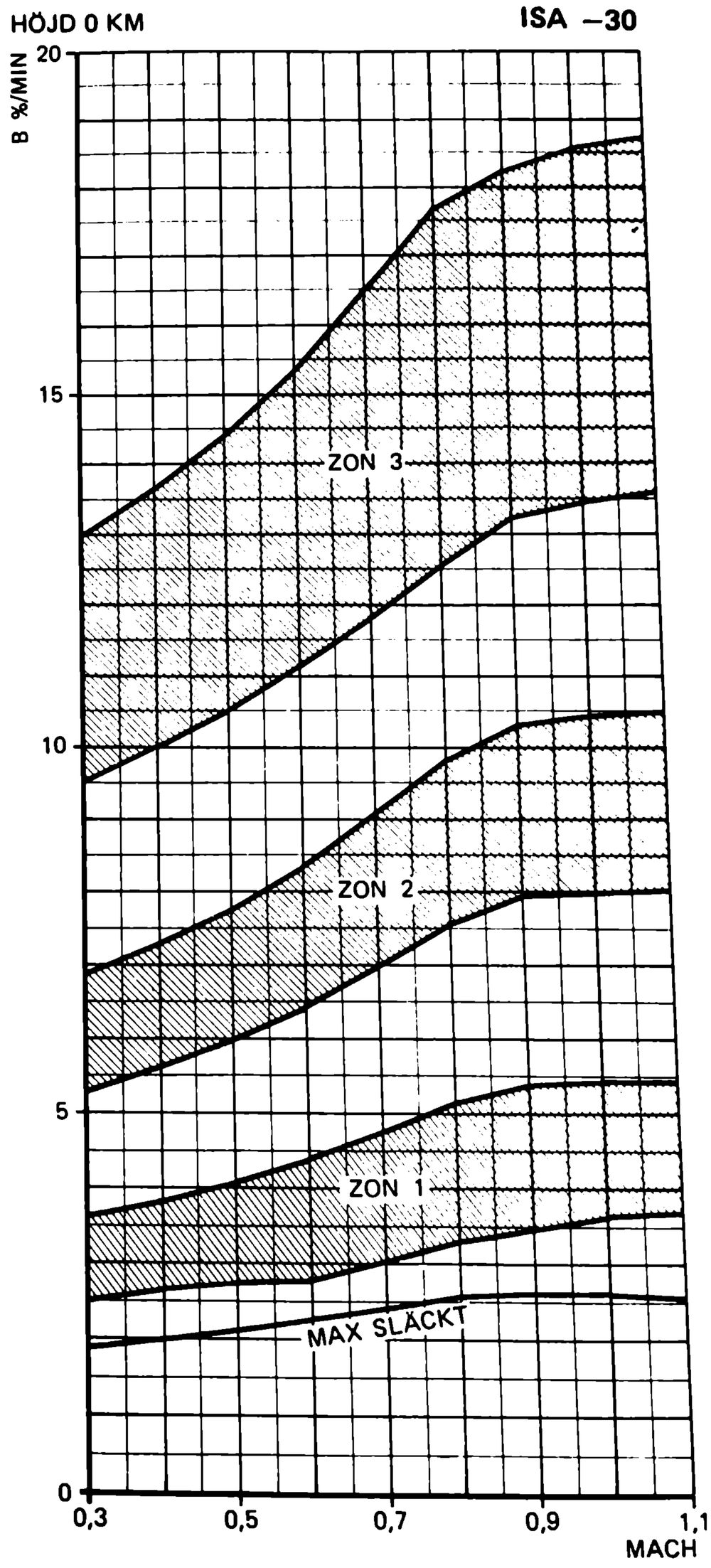
# BRÄNSLEFÖRBRUKNING



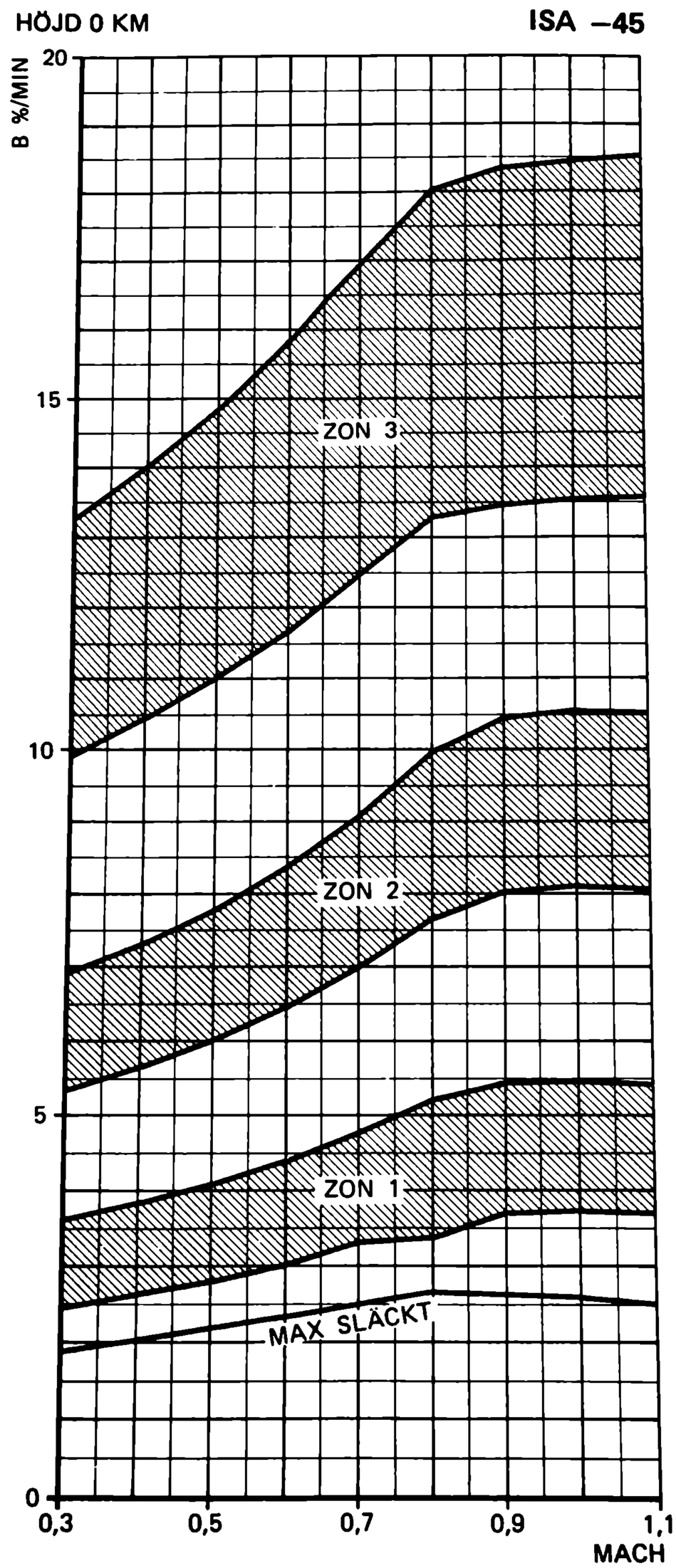



# BRÄNSLEFÖRBRUKNING



# BRÄNSLEFÖRBRUKNING



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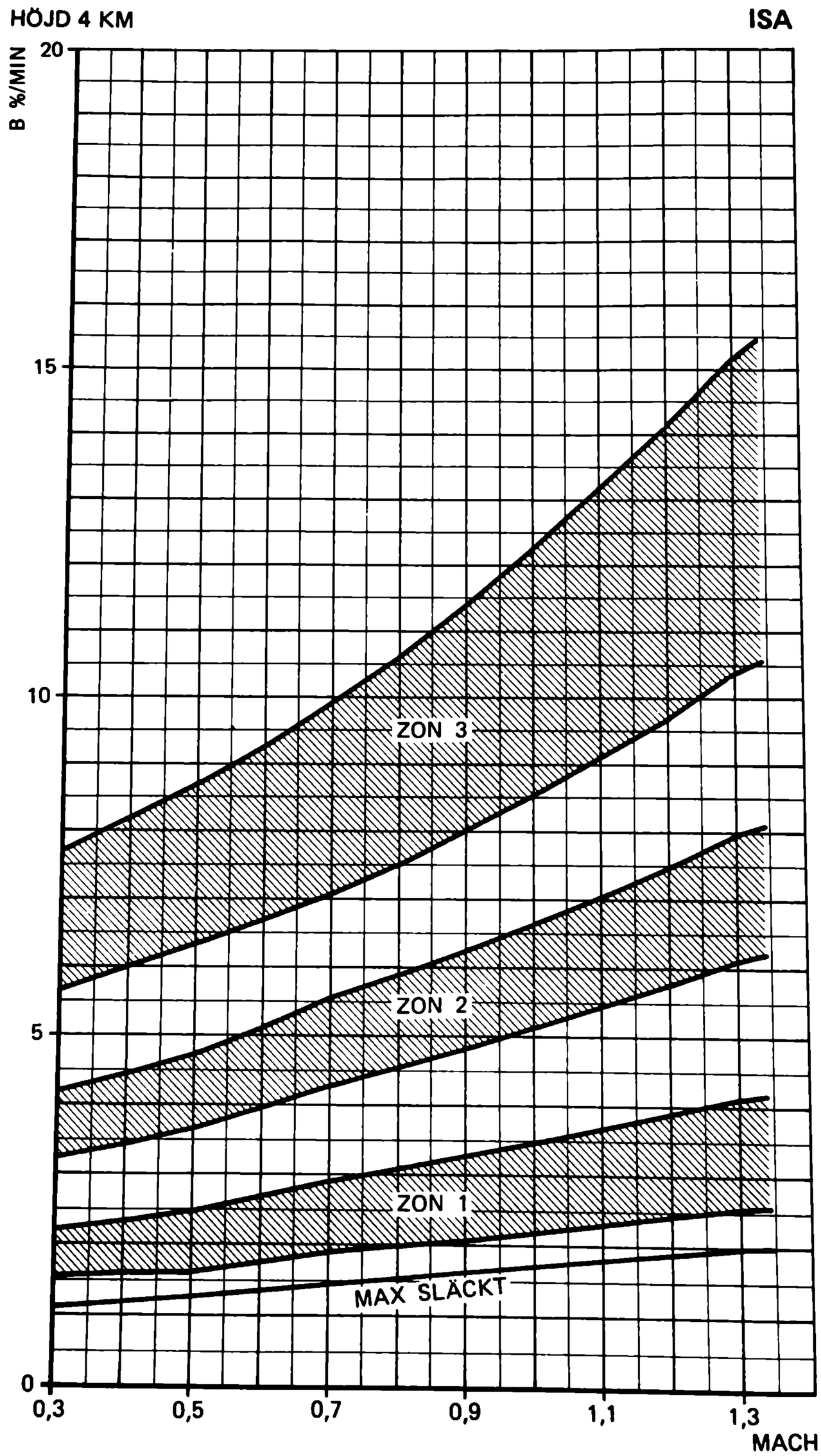
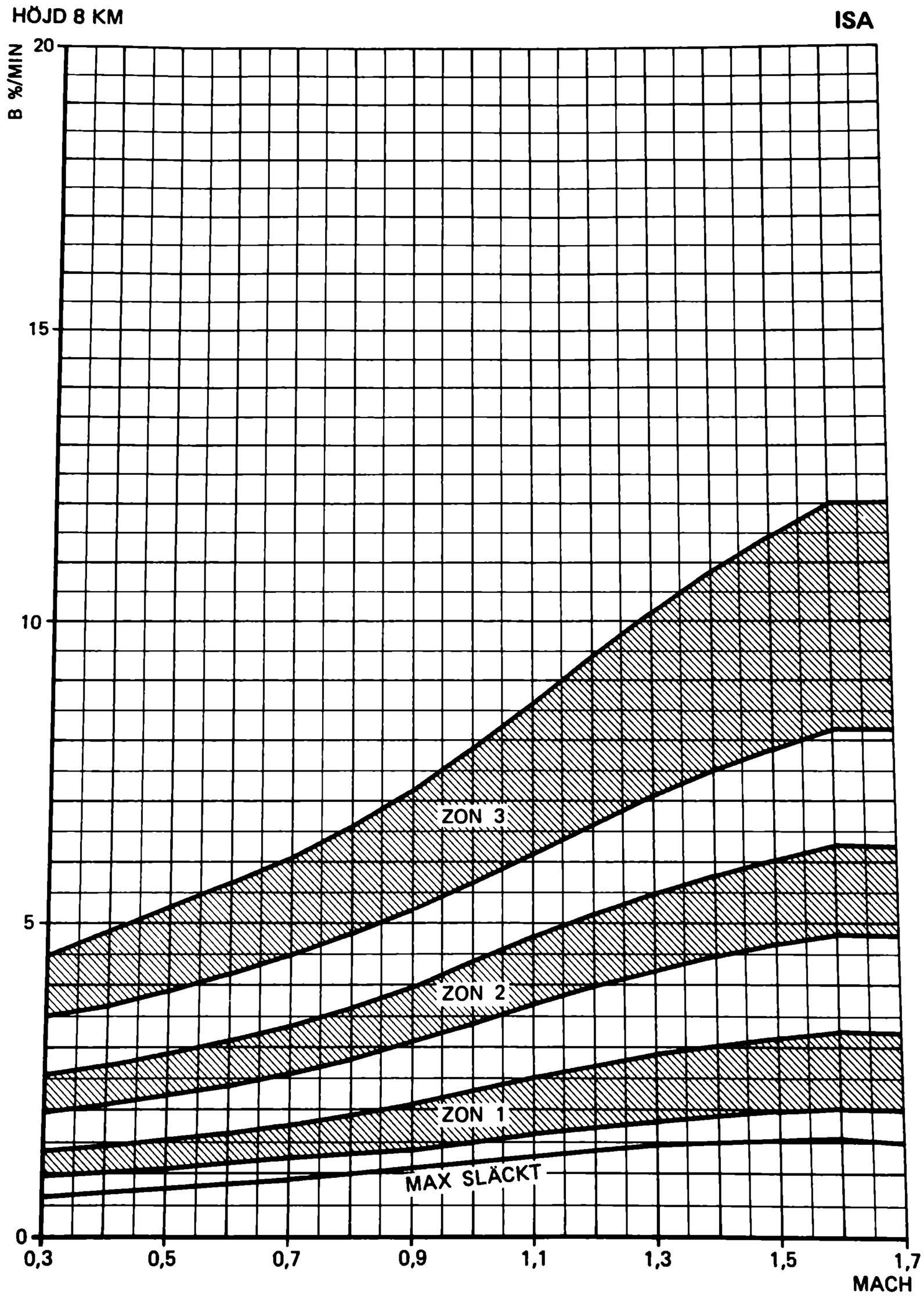


# BRÄNSLEFÖRBRUKNING



**Innehåll** Sida

DIAGRAMBESKRIVNING ..... 3
Plané distansekonomisk ... 4-8

# PLANÉ

# DIAGRAMBESKRIVNING

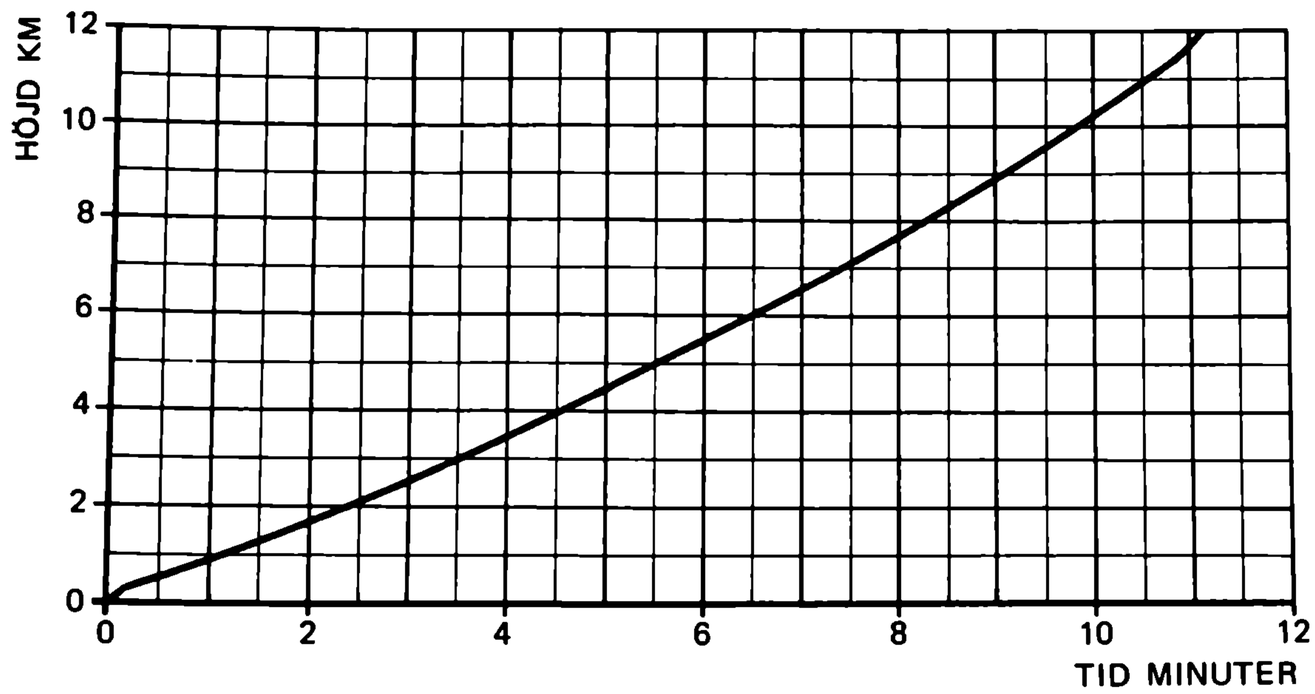
## Plané distansekonomisk

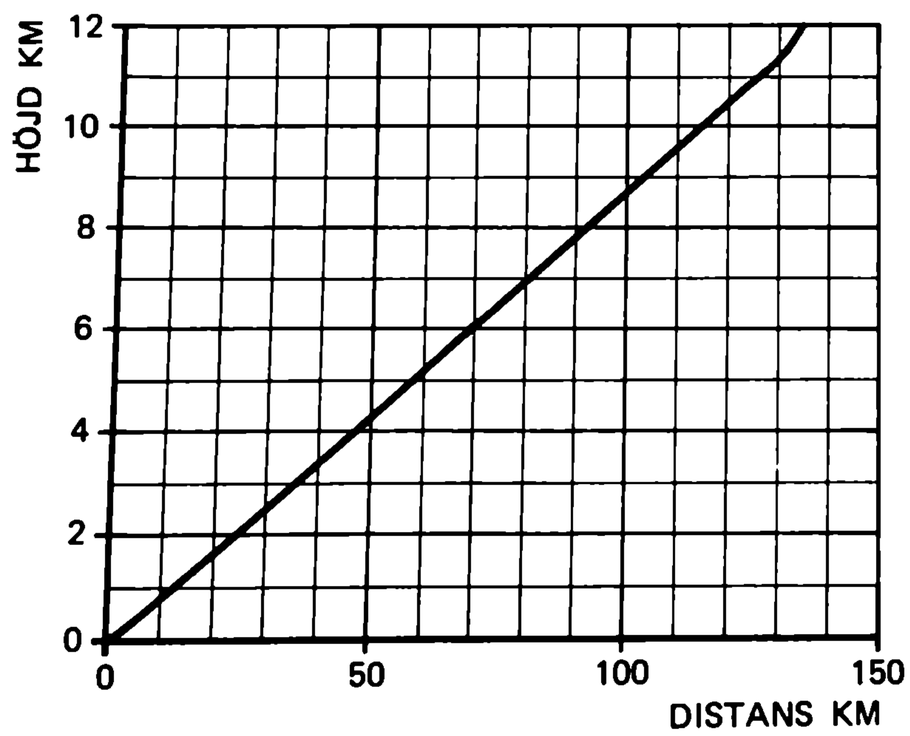
Lastalt: Rent fpl + grupp 1 — 4
Atmosfär: ISA (Atmosfärsinverkan obetydlig vid plané)
Pådrag: Flygtomgång
Vikt: Motsvarande fpl med 10 % kvarvarande bränsle
Banfart M = 0,90 till $V_i$ = 550 km/h

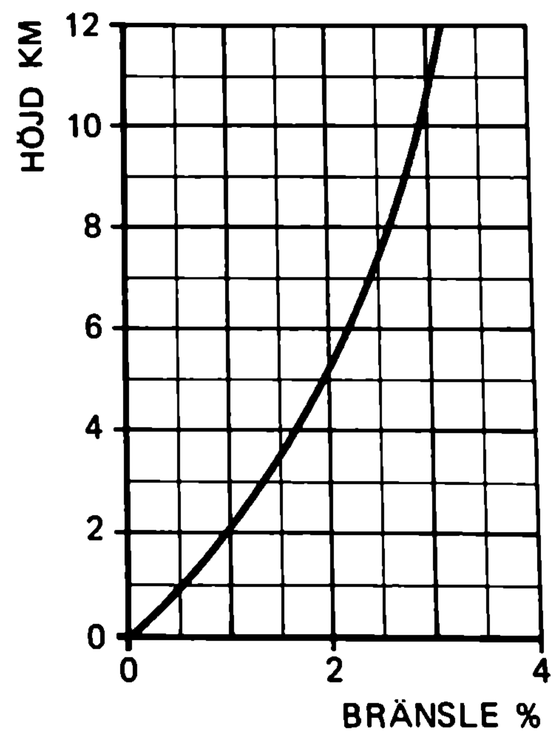
# PLANÉ

**RENT FPL**
**FLYGTOMGÅNG**
**ISA**

**DISTANSEKONOMISK**



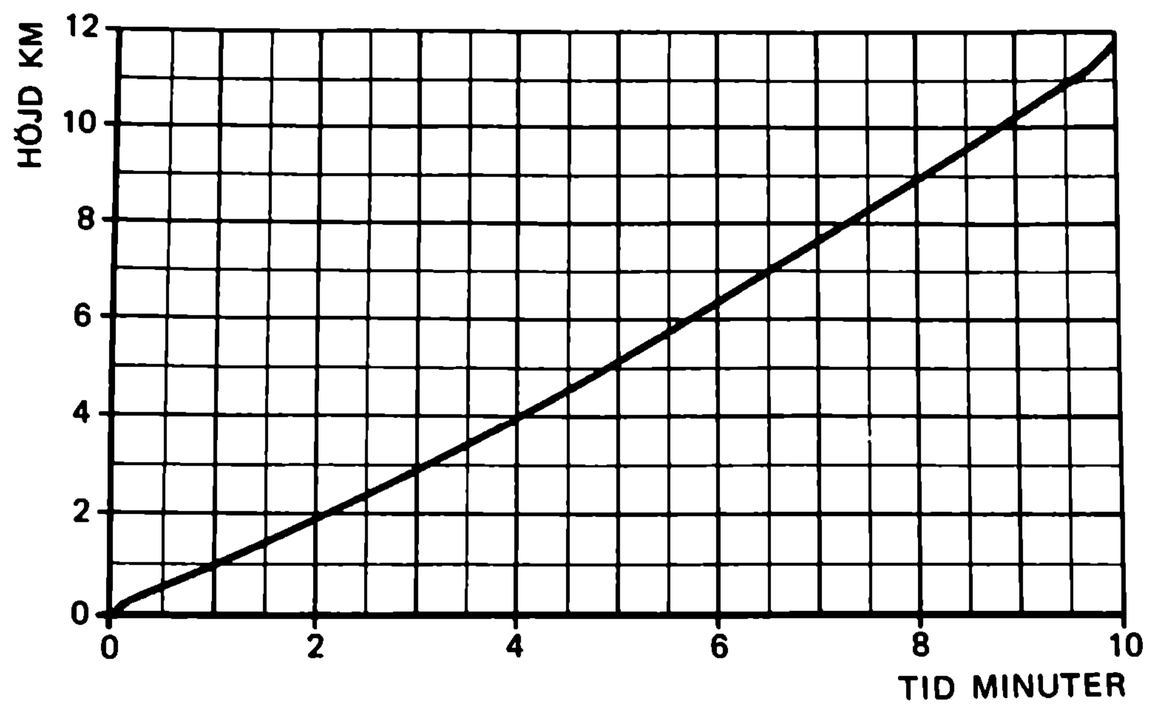



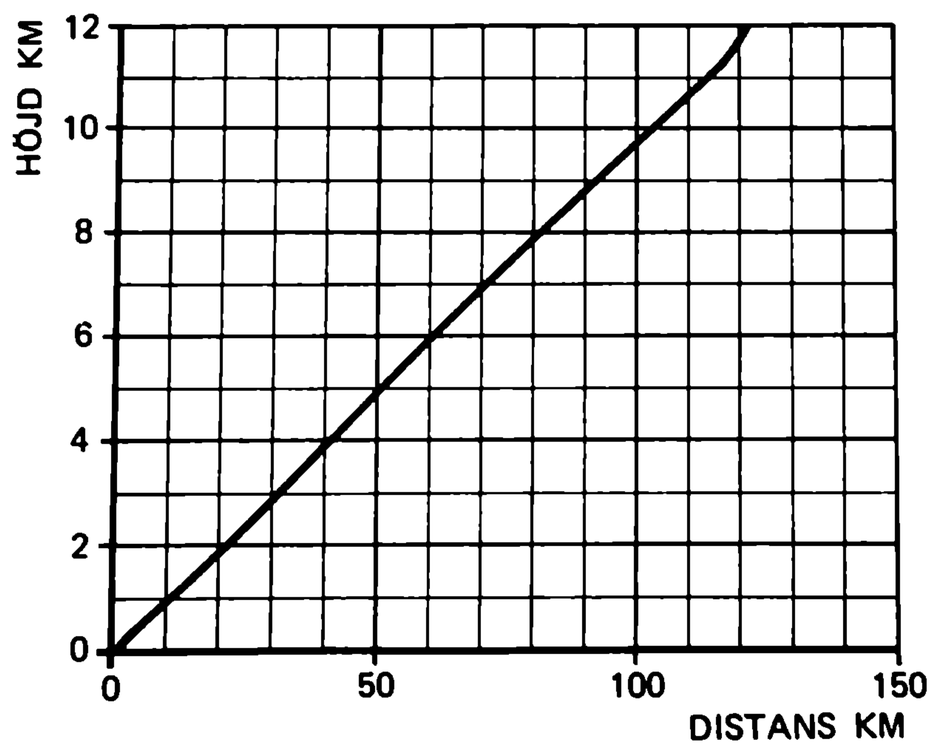



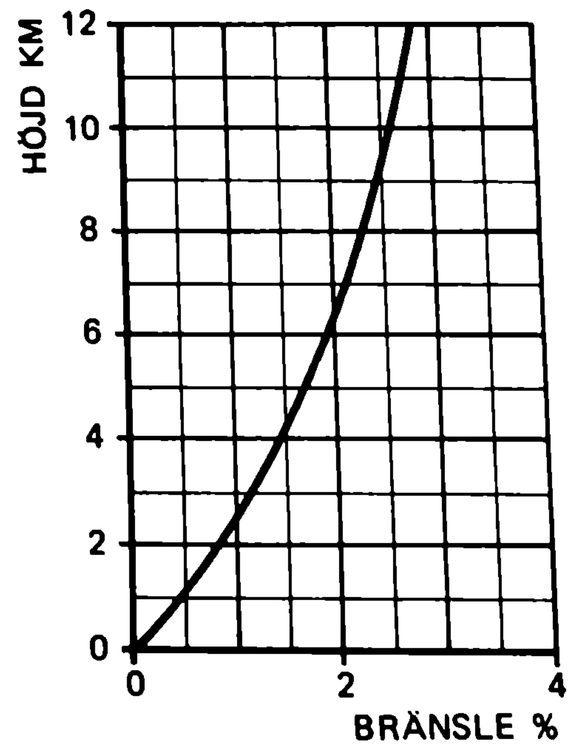
# PLANÉ

**LASTALTERNATIV GRUPP 1**
**FLYGTOMGÅNG**
**ISA**

DISTANSEKONOMISK



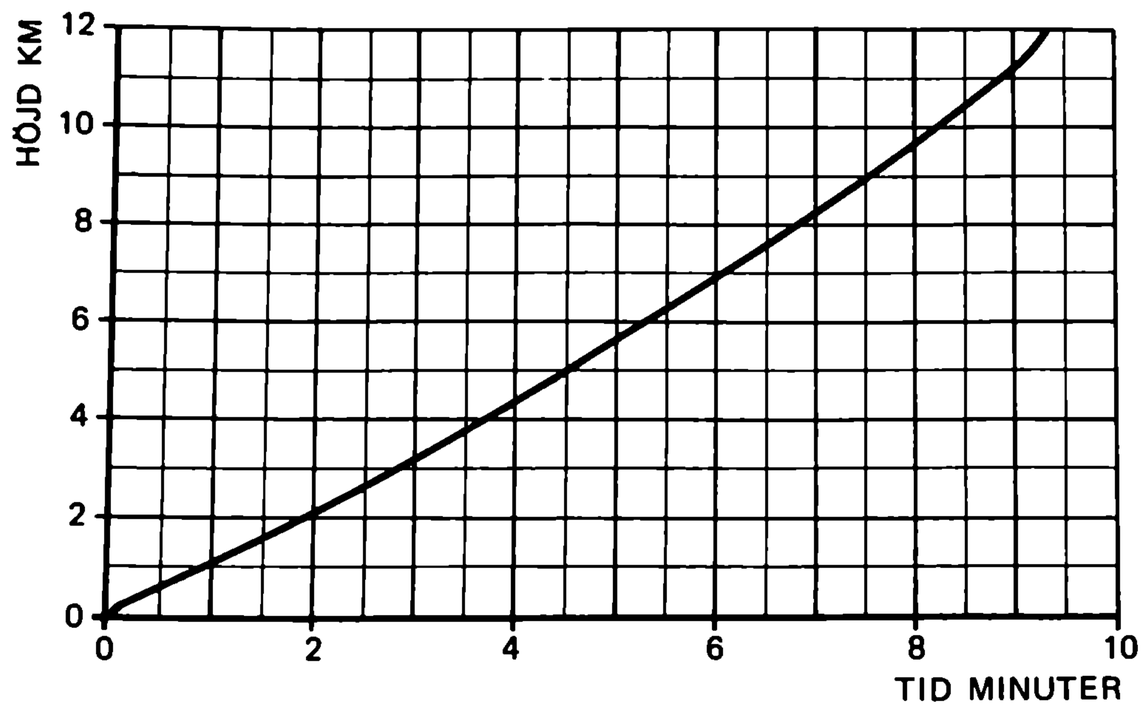



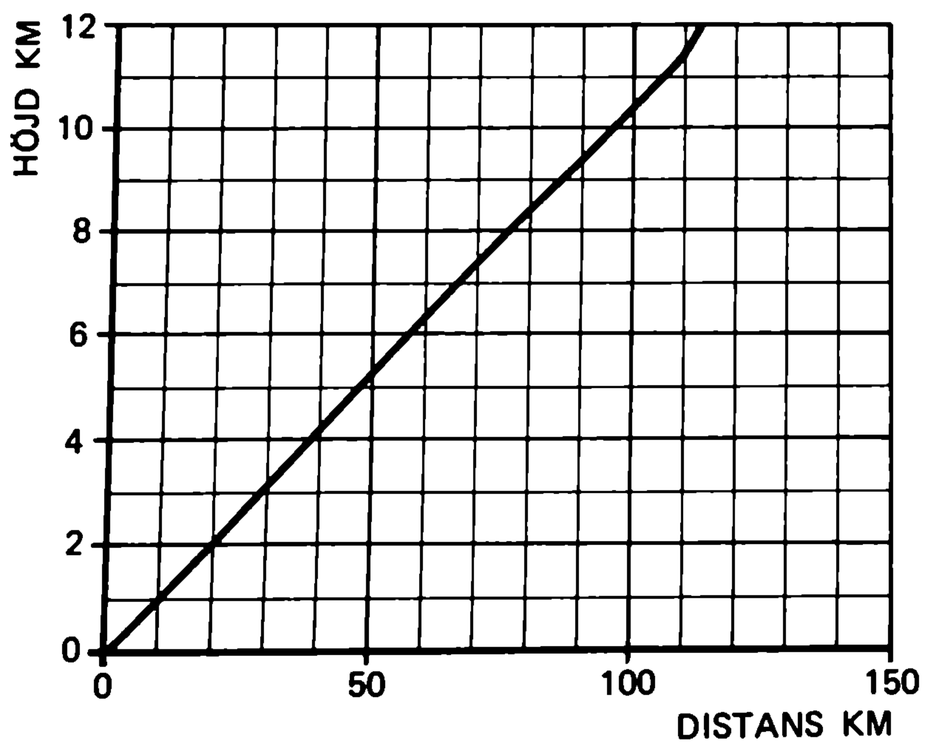



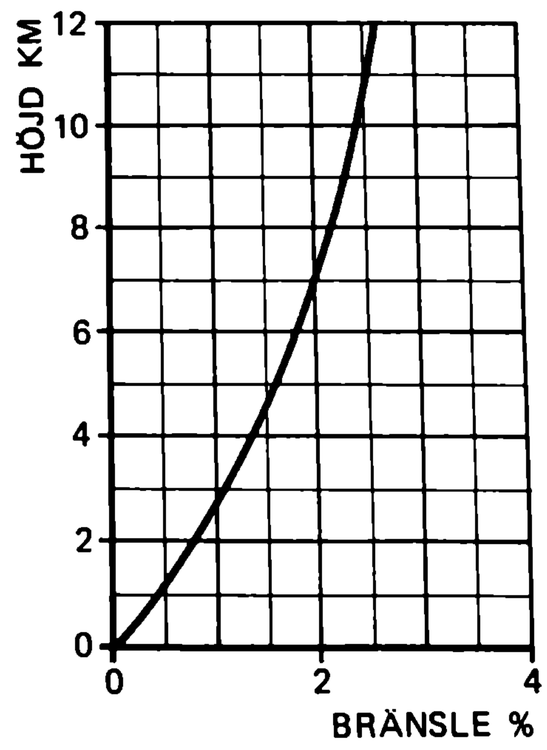
# PLANÉ

## LASTALTERNATIV GRUPP 2
## FLYGTOMGÅNG ISA

DISTANSEKONOMISK



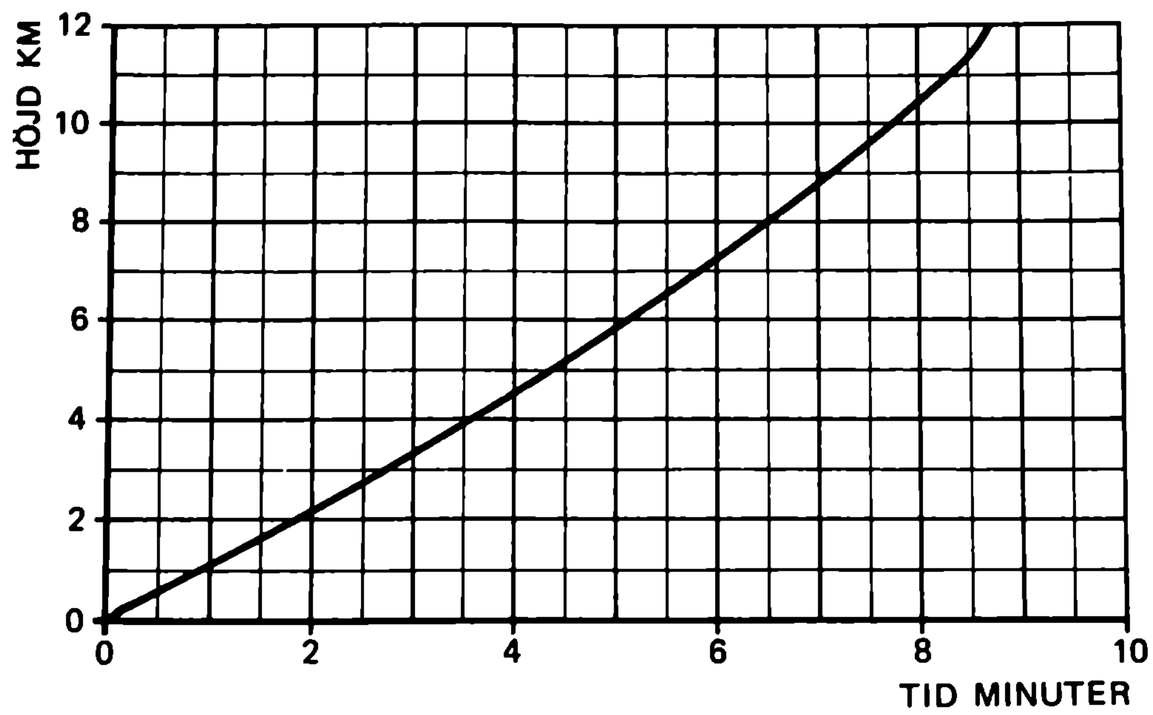



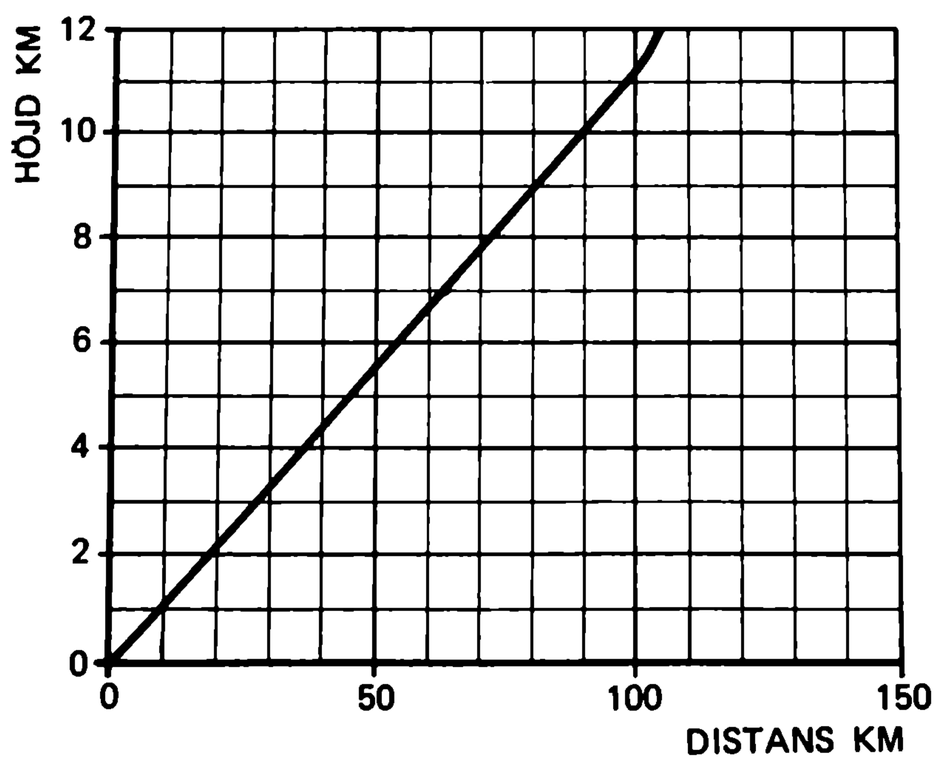



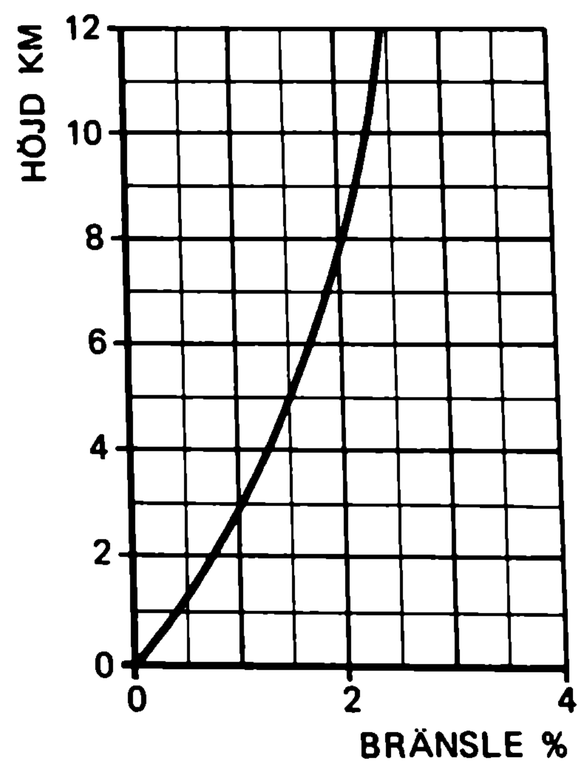
# PLANÉ

**LASTALTERNATIV GRUPP 3**
**FLYGTOMGÅNG**
**ISA**

DISTANSEKONOMISK



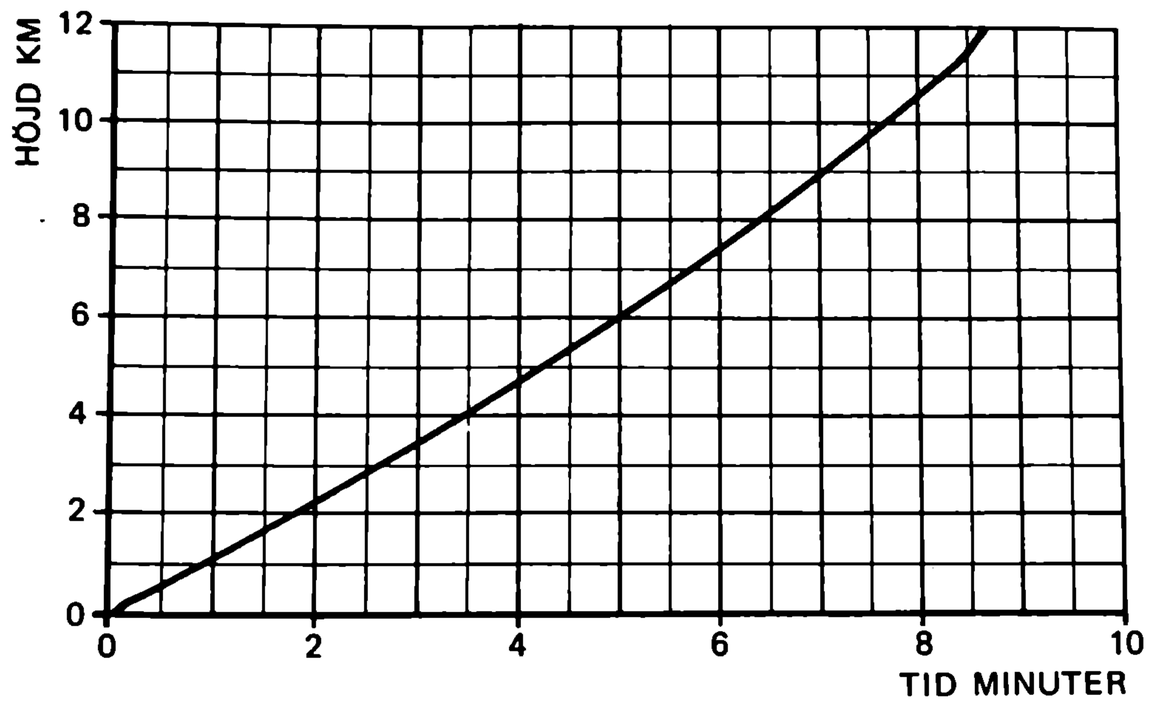



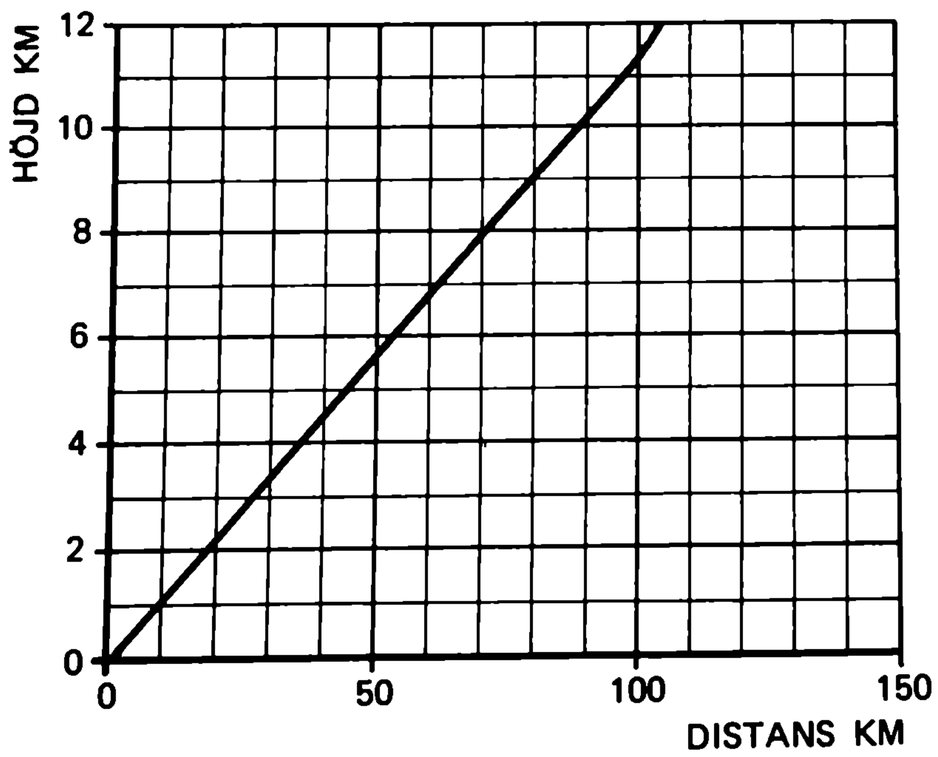



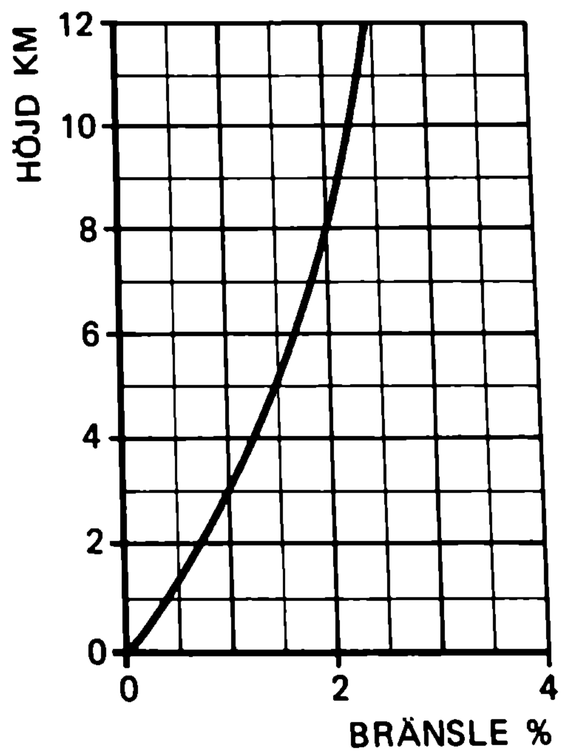
# PLANÉ

**LASTALTERNATIV GRUPP 4**
**FLYGTOMGÅNG**
**ISA**

**DISTANSEKONOMISK**



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# FLYGSTRÄCKA

2016-01-21 fr

# DIAGRAMBESKRIVNING

## Flygsträcka distansekonomisk

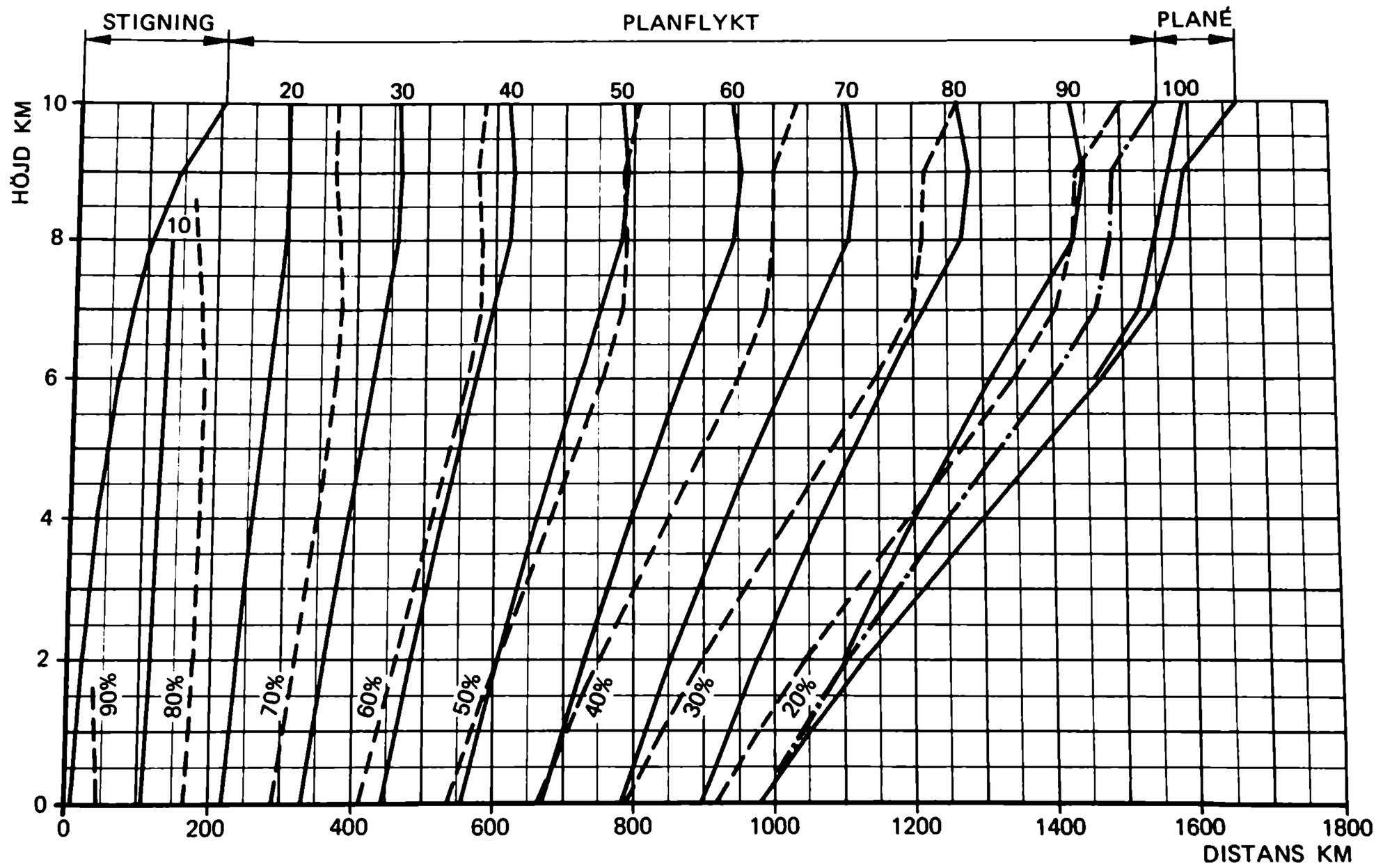
Sträcka, tid och kvarvarande bränsle vid förflyttningsflygning med stigning, planflykt och plané
Lastalt: Rent fpl + grupp 1 — 4
Utgångsvikt: Startvikt

# FLYGSTRÄCKA distansekonomisk

**RENT FPL**
**ISA**

UTTAGBART BRÄNSLE 100 %
UTKÖRNINGSBRÄNSLE 5 %
BRÄNSLERESERV 15 %

STIGNING MED MAX SLÄCKT $V_i$ = 675 KM/H M = 0,90
PLANÉ MED FLYGTOMGÅNG M = 0,90 $V_i$ = 550 KM/H
PLANFLYKT DISTANSEKONOMISK $V_i$ = 675 KM/H M = 0,90



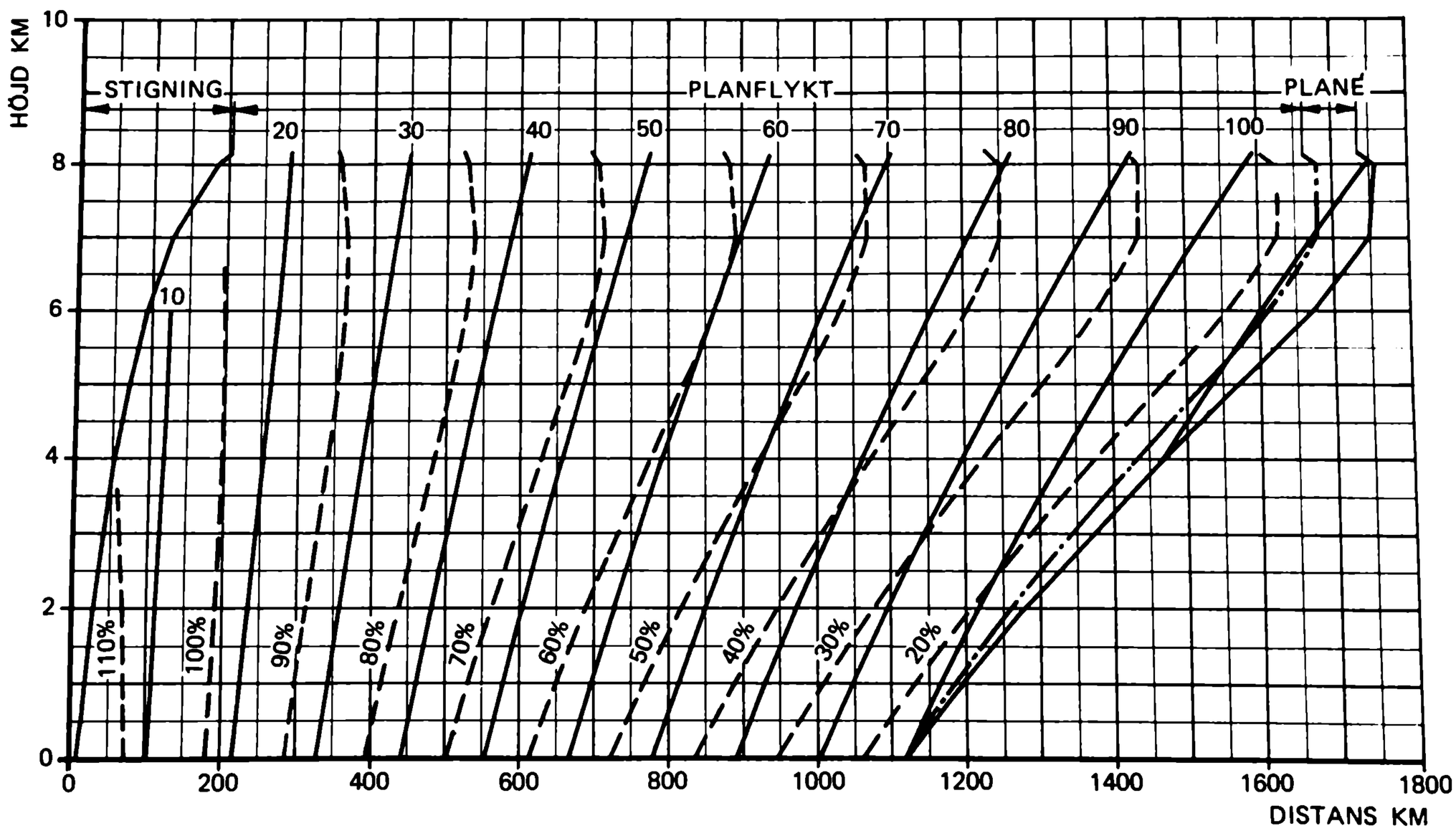

— — — — KVARVARANDE BRÄNSLE I %
———— TID I MINUTER
—·—·— PLANÉ

# FLYGSTRÄCKA distansekonomisk

**LASTALTERNATIV GRUPP 1**
**ISA**

UTTAGBART BRÄNSLE 124 %
UTKÖRNINGSBRÄNSLE 5 %
BRÄNSLERESERV 15 %

STIGNING MED MAX SLÄCKT $V_i$ = 675 KM/H M = 0,90
PLANÉ MED FLYGTOMGÅNG M = 0,90 $V_i$ = 550 KM/H
PLANFLYKT DISTANSEKONOMISK $V_i$ = 675 KM/H M = 0,90



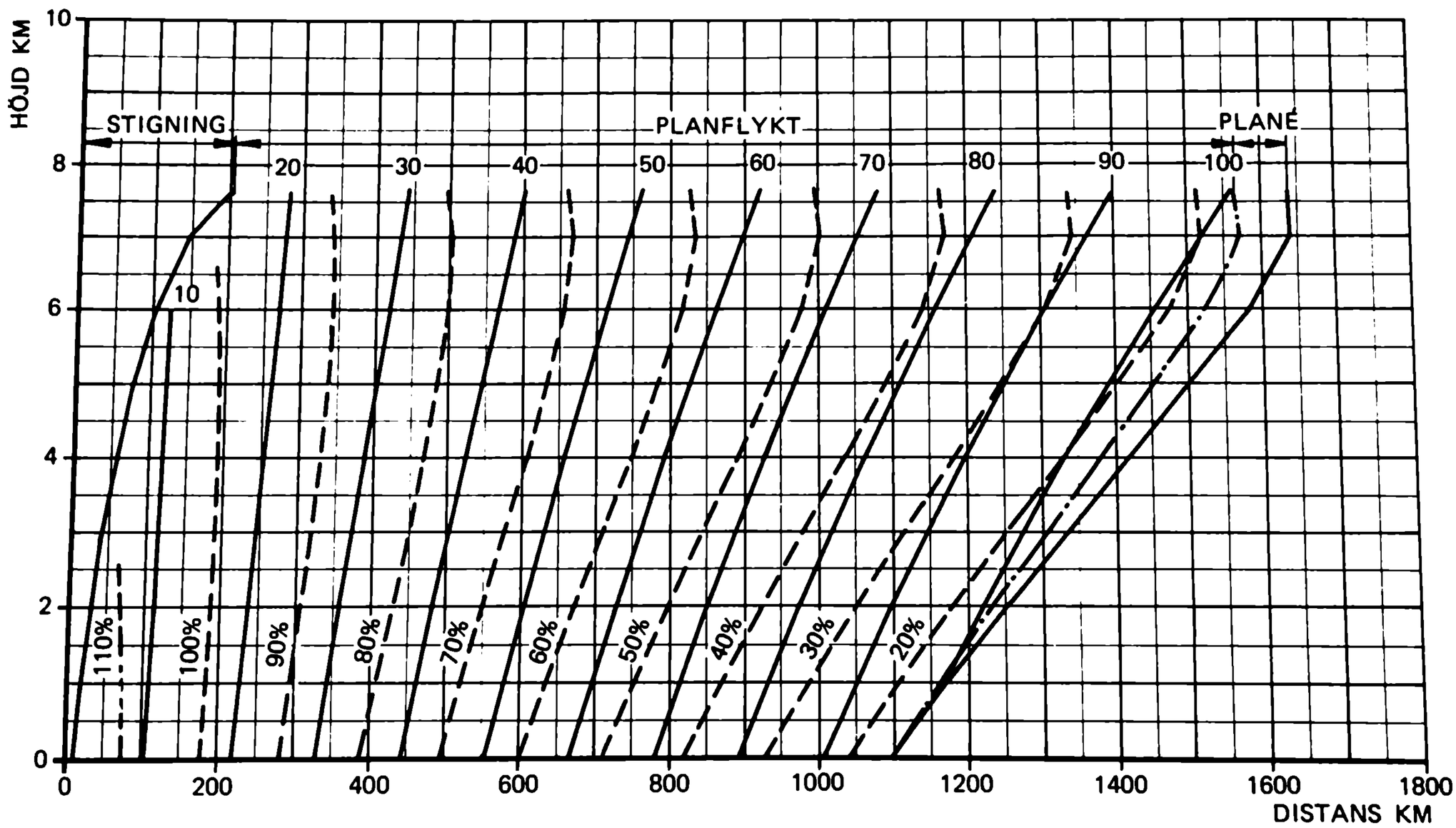

— — — — KVARVARANDE BRÄNSLE I %
———— TID I MINUTER
—·—·— PLANÉ

# FLYGSTRÄCKA distansekonomisk

**LASTALTERNATIV GRUPP 2**
**ISA**

UTTAGBART BRÄNSLE 124 %
UTKÖRNINGSBRÄNSLE 5 %
BRÄNSLERESERV 15 %

STIGNING MED MAX SLÄCKT $V_i$ = 675 KM/H M = 0,90
PLANÉ MED FLYGTOMGÅNG M = 0,90 $V_i$ = 550 KM/H
PLANFLYKT DISTANSEKONOMISK $V_i$ = 675 KM/H M = 0,90



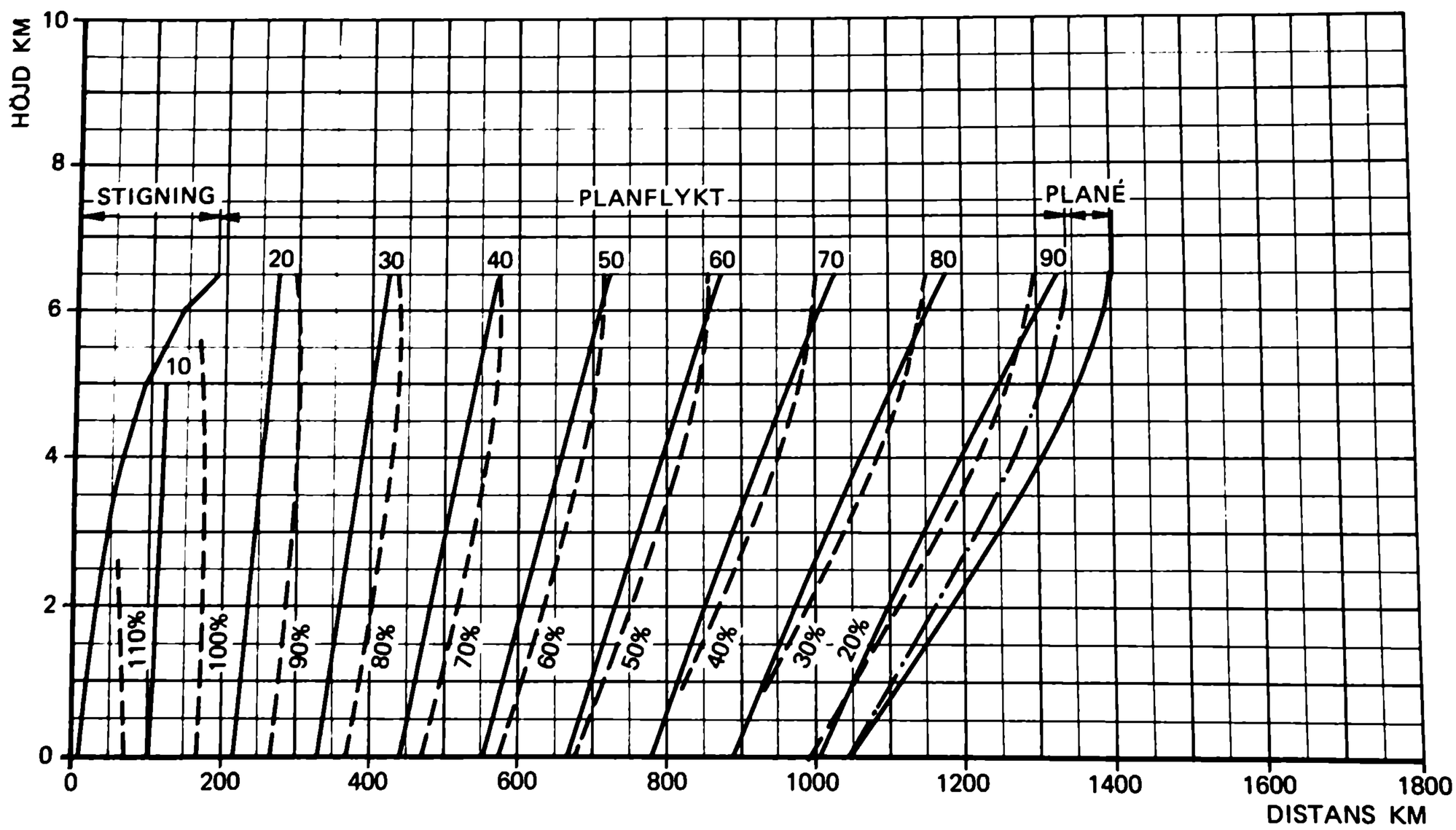

— — — — KVARVARANDE BRÄNSLE I %
———— TID I MINUTER
—·—·— PLANÉ

# FLYGSTRÄCKA distansekonomisk

**LASTALTERNATIV GRUPP 3**
**ISA**

UTTAGBART BRÄNSLE 124 %
UTKÖRNINGSBRÄNSLE 5 %
BRÄNSLERESERV 15 %

STIGNING MED MAX SLÄCKT $V_i$ = 675 KM/H M = 0,90
PLANÉ MED FLYGTOMGÅNG M = 0,90 $V_i$ = 550 KM/H
PLANFLYKT DISTANSEKONOMISK $V_i$ = 675 KM/H M = 0,90




— — — — KVARVARANDE BRÄNSLE I %
———— TID I MINUTER
—·—·— PLANÉ

# FLYGSTRÄCKA distansekonomisk

**LASTALTERNATIV GRUPP 4**
**ISA**

UTTAGBART BRÄNSLE 124 %
UTKÖRNINGSBRÄNSLE 5 %
BRÄNSLERESERV 15 %

STIGNING MED MAX SLÄCKT $V_i$ = 675 KM/H M = 0,90
PLANÉ MED FLYGTOMGÅNG M = 0,90 $V_i$ = 550 KM/H
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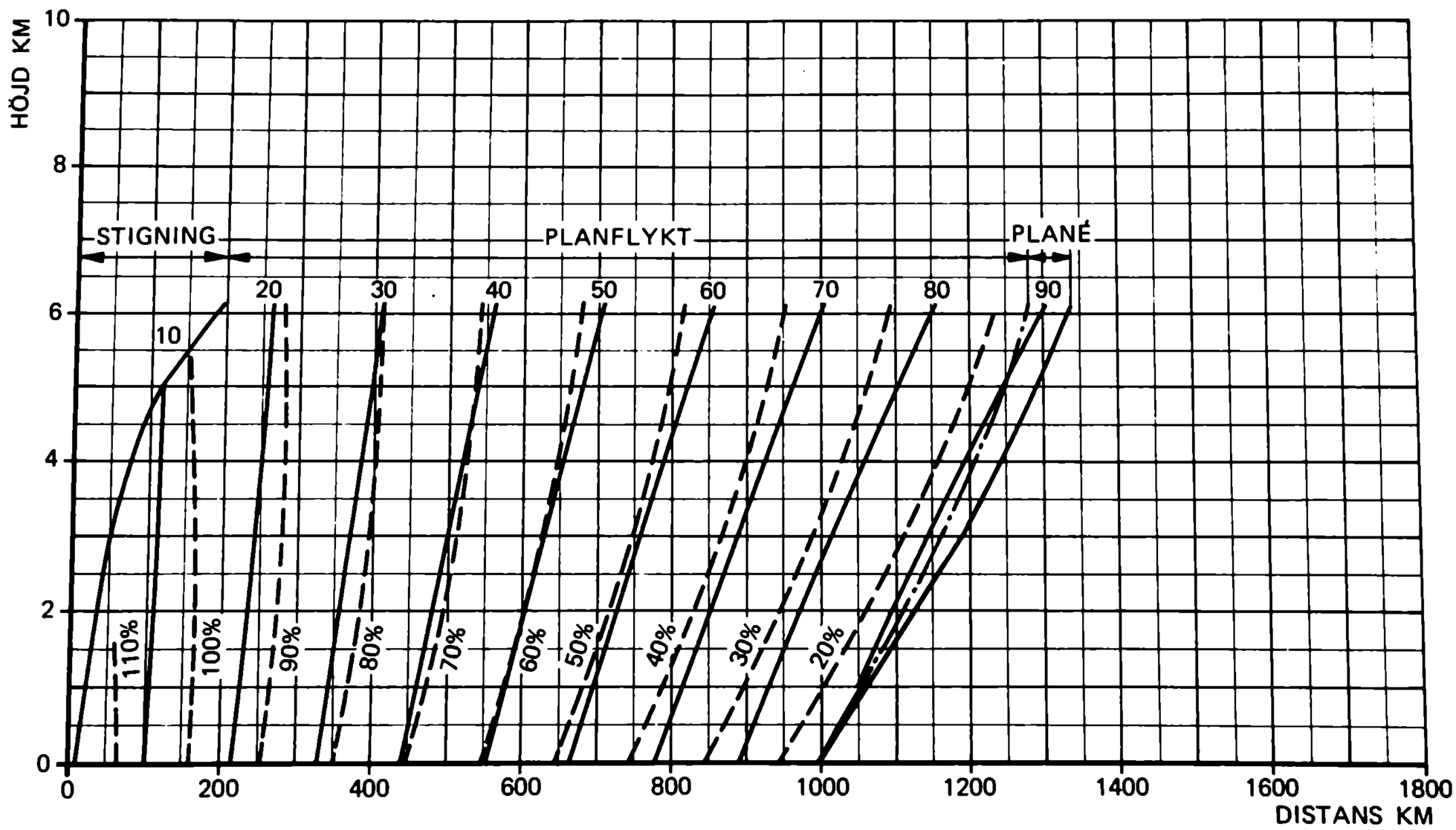


— — — — KVARVARANDE BRÄNSLE I %
———— TID I MINUTER
—·—·— PLANÉ