



Tooling

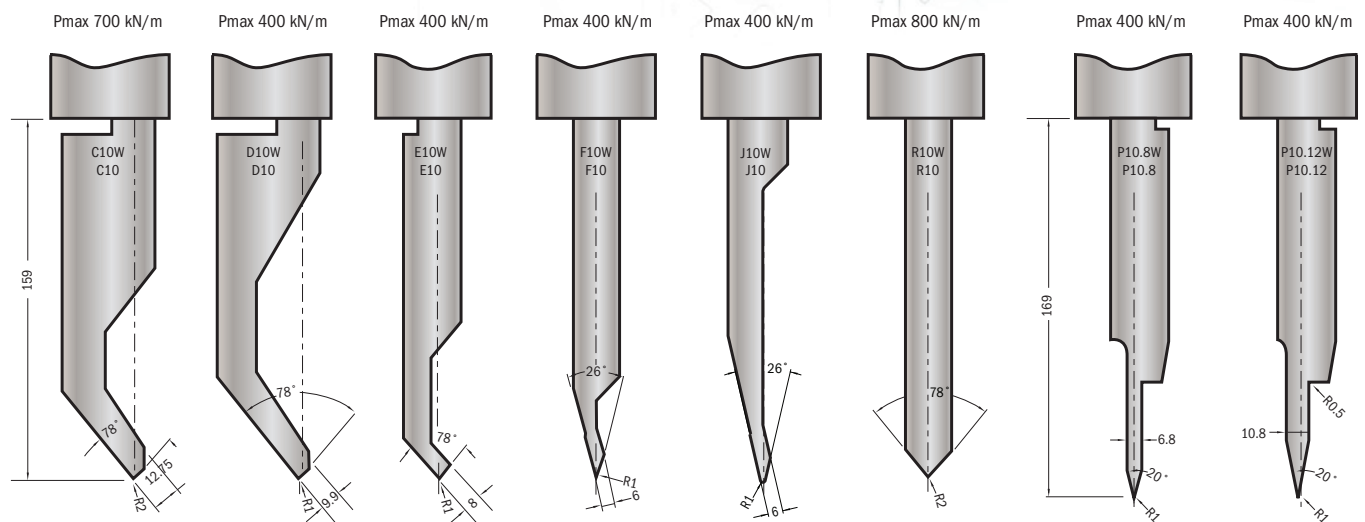
PRESS BRAKES

Sheet Metalworking, Our Passion, Your Solution

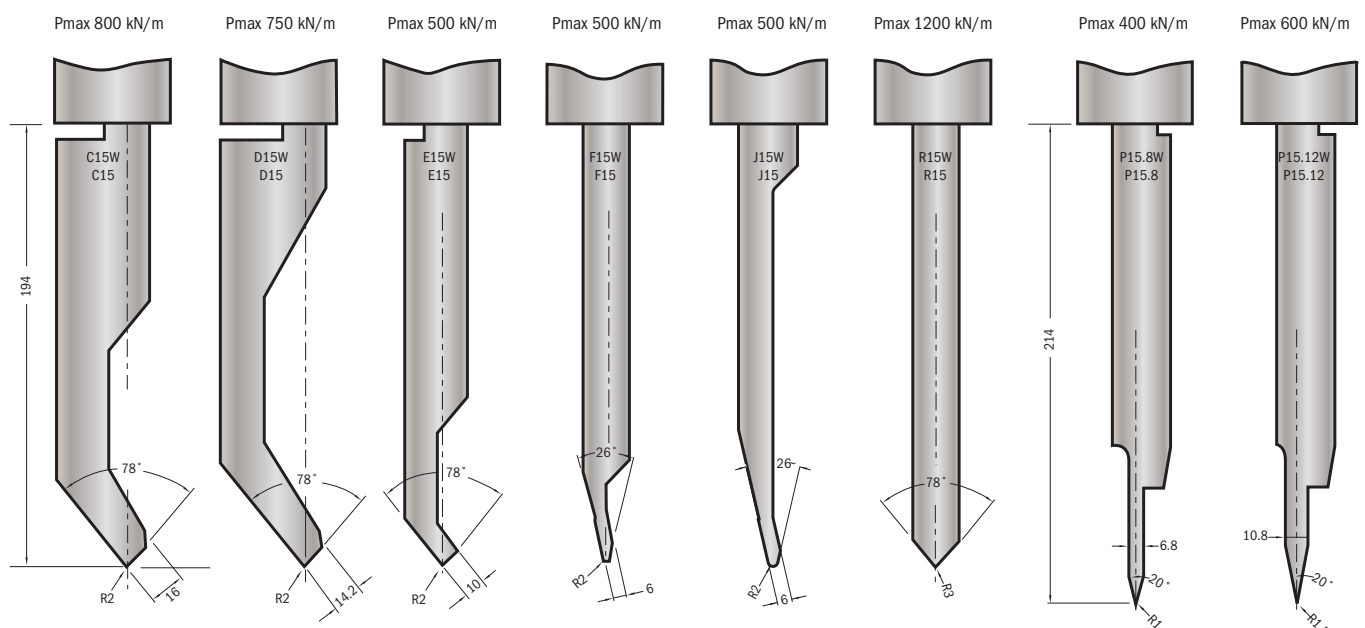
Standard Punches



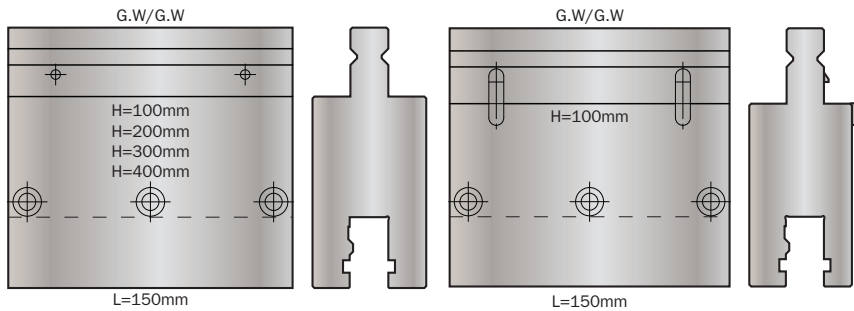
MACHINES 350-2200 kN



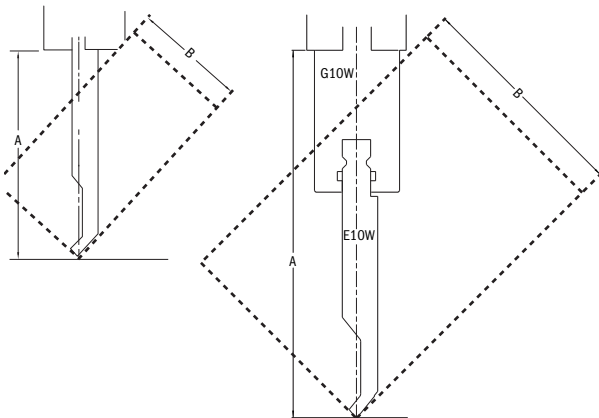
MACHINES 2200^{Plus} - 6400 kN



Adapters

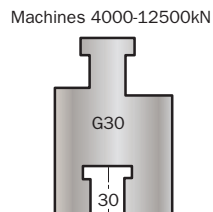
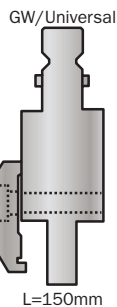
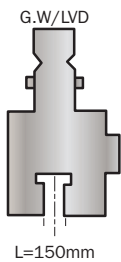


DEFINING PUNCH HEIGHT



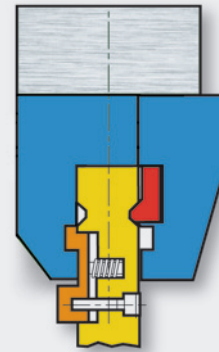
Machines 350 - 2200 kN 2200Plus - 6400 kN

| ADAPTOR | A | B | A | B |
|------------|-----|-----|-----|-----|
| no adaptor | 159 | 92 | 194 | 116 |
| 100mm | 259 | 160 | 294 | 184 |
| 200mm | 359 | 228 | 394 | 252 |
| 300mm | 459 | 296 | 494 | 320 |
| 400mm | 559 | 364 | 594 | 388 |

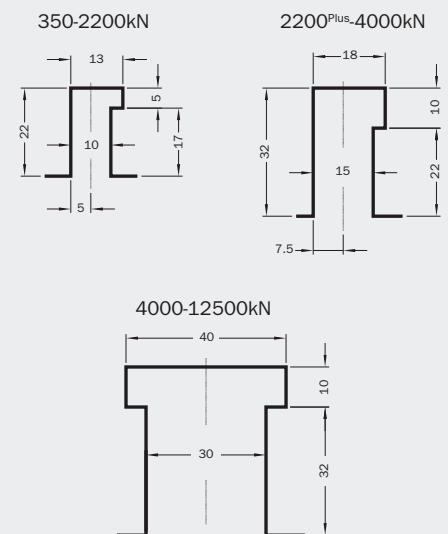


Clamping

QUICK CLAMPING

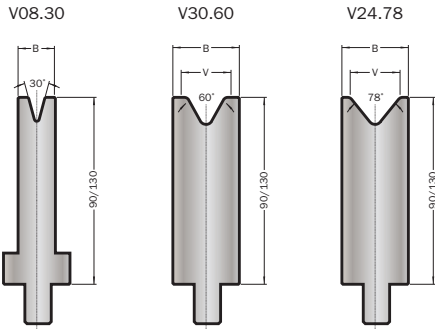


CLASSIC CLAMPING



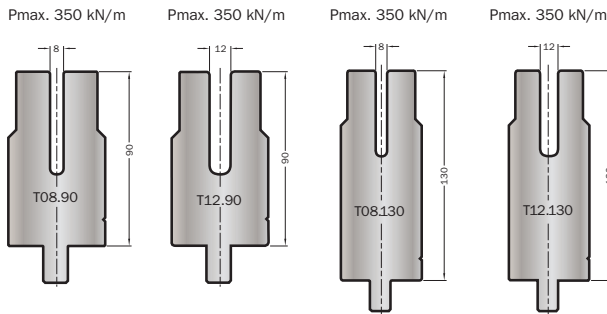
Dies

SINGLE V-DIES



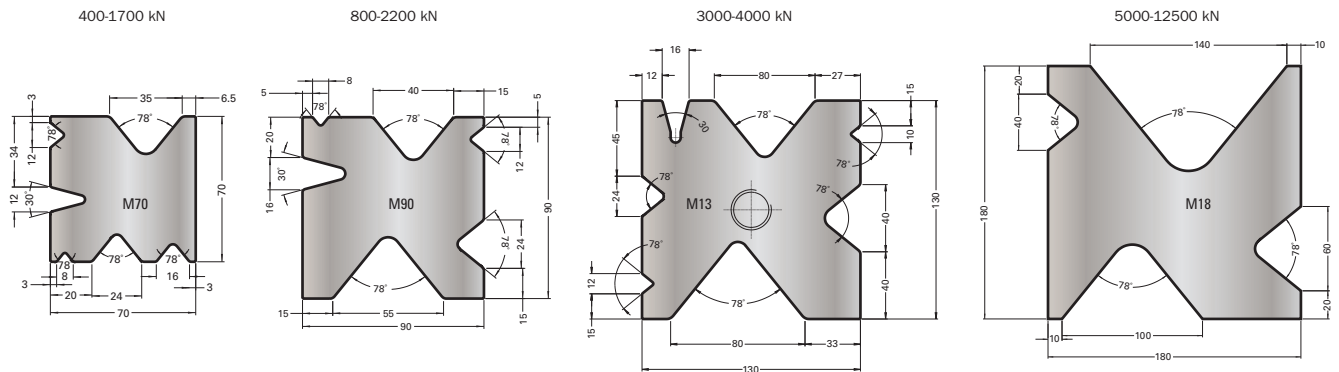
| V(mm) | $\alpha(^{\circ})$ | B(mm) | Pmax(kN/m) | V(mm) | $\alpha(^{\circ})$ | B(mm) | Pmax(kN/m) |
|-------|--------------------|-------|------------|-------|--------------------|-------|------------|
| 6 | 30 | 16 | 200 | 6 | 78 | 12 | 400 |
| 8 | 30 | 18 | 220 | 8 | 78 | 12 | 400 |
| 10 | 30 | 25 | 300 | 10 | 78 | 14 | 500 |
| 12 | 30 | 32 | 380 | 12 | 78 | 18 | 600 |
| 16 | 30 | 40 | 380 | 16 | 78 | 25 | 800 |
| 20 | 30 | 40 | 380 | 20 | 78 | 32 | 1000 |
| 24 | 30 | 45 | 550 | 24 | 78 | 32 | 1000 |
| 30 | 30 | 70 | 600 | 30 | 78 | 40 | 1100 |
| 40 | 30 | 75 | 600 | 40 | 78 | 50 | 1300 |
| 50 | 30 | 95 | 780 | 50 | 78 | 70 | 1500 |
| 30 | 60 | 40 | 500 | 60 | 78 | 70 | 1500 |
| 40 | 60 | 55 | 660 | 80 | 78 | 95 | 1500 |
| 50 | 60 | 70 | 1050 | | | | |
| 60 | 60 | 80 | 1350 | | | | |
| 80 | 60 | 102 | 1750 | | | | |
| 100 | 60 | 120 | 1500 | | | | |
| 120 | 60 | 145 | 1300 | | | | |

HEMMING DIES

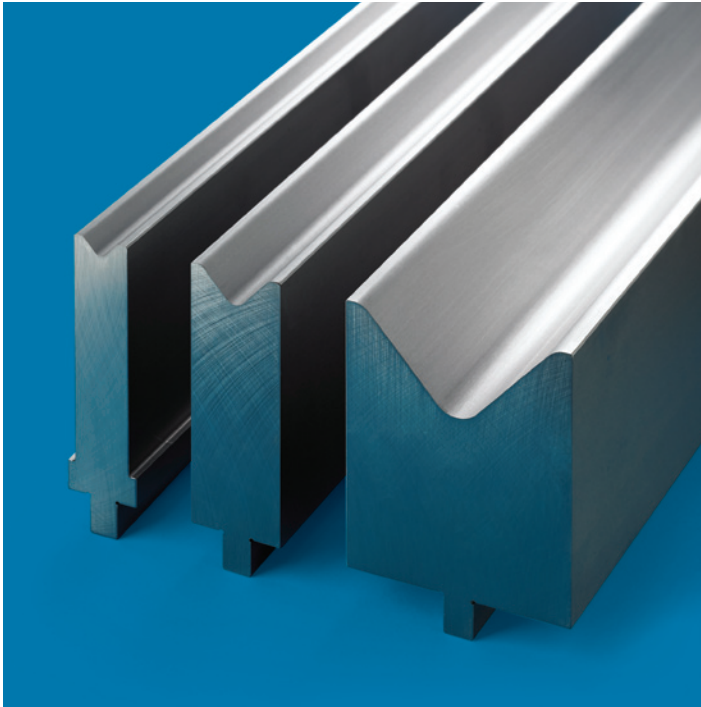


| | ST-450N/mm ² | | ST-600N/mm ² | |
|-----|-------------------------|-----|-------------------------|-----|
| | min | max | min | max |
| T08 | 0,6 | 1,5 | 0,8 | 1,2 |
| T10 | 0,8 | 2 | 1 | 1,6 |
| T12 | 1,2 | 2,5 | 1,2 | 2,0 |

MULTI V-DIES



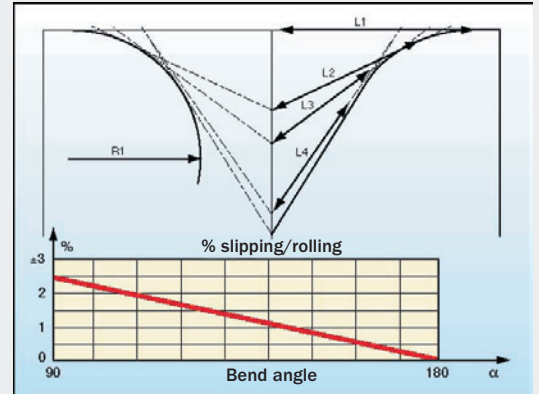
STONE[®] Radius



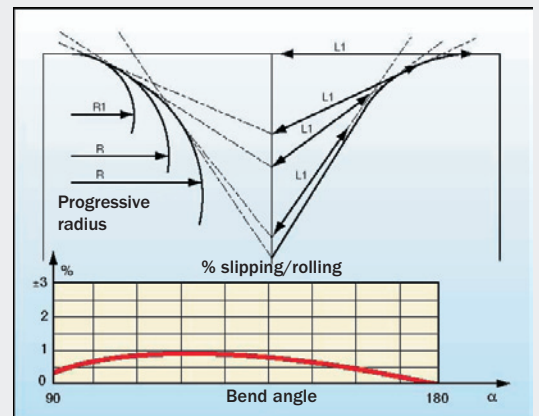
STONE[®] radius assures accurate bend angles along the entire bending length. LVD tooling is produced with a progressive radius on both sides of the V-opening, allowing the material to flow into the die more evenly and with less drag. This unique design of the V-die reduces the friction between the material and the die encountered when bending, by creating a rolling condition as the material enters the die.

STONE TOOLING ALSO PROVIDES:

- Reduced tool wear
- Tool interchangeability
- Reduced residue on stainless steel
- Improved material control
- Reduced tonnage requirements
- Symmetric bending



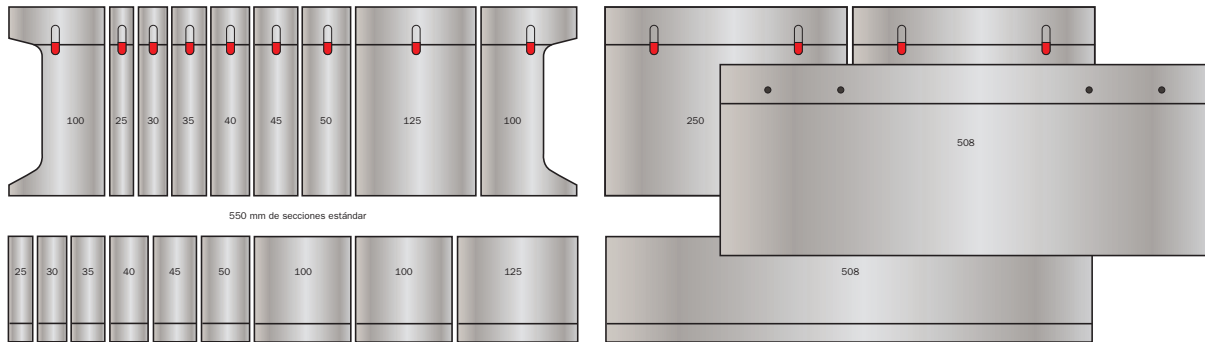
Normal Radius



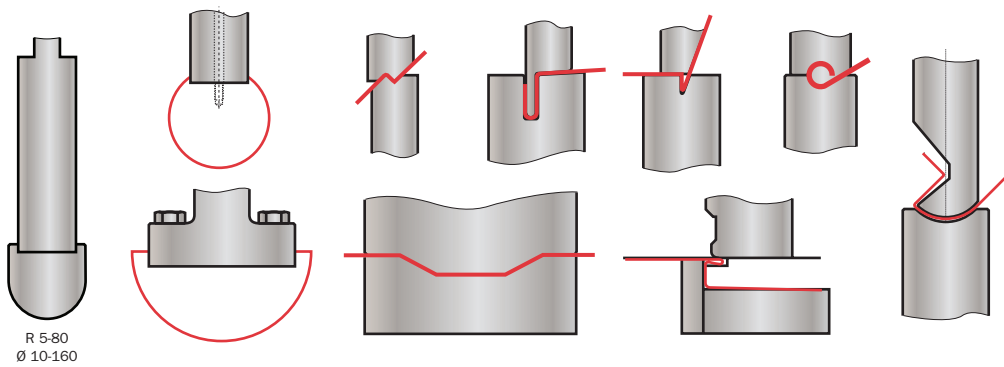
STONE Radius

Tooling

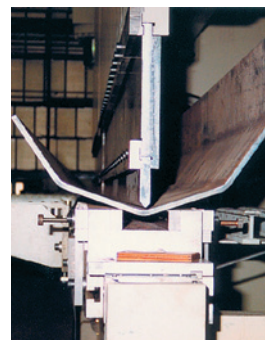
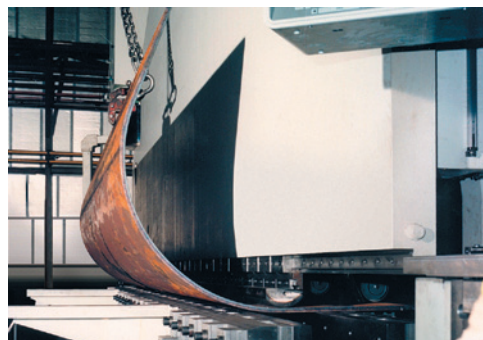
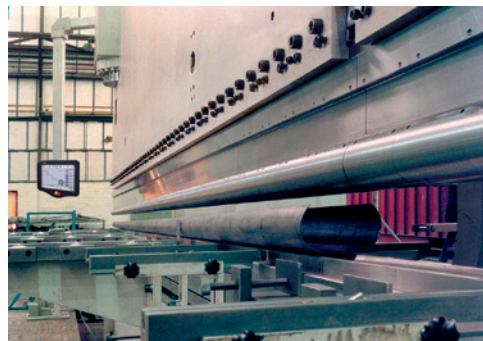
COMPLETE TOOLING SETS



SPECIAL TOOLING



APPLICATIONS

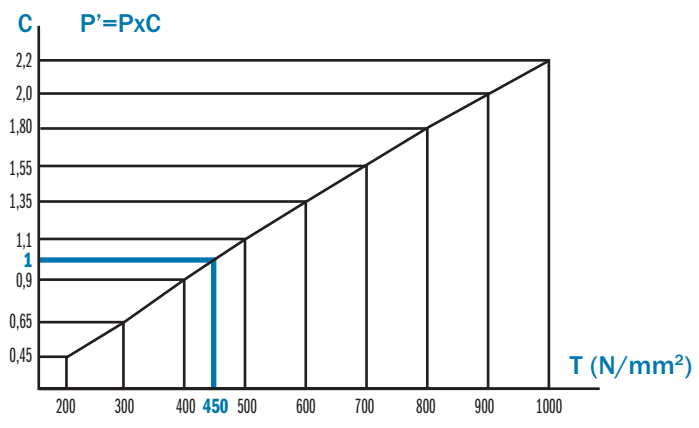
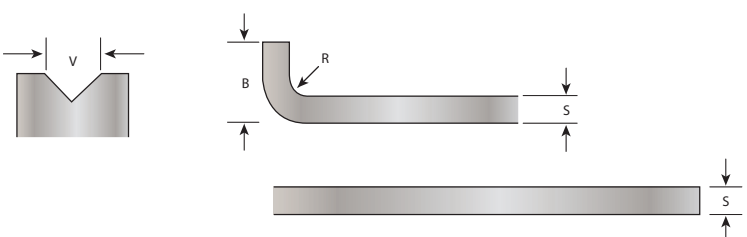


Bending Chart

| V | R | B | 0,5 | 0,8 | 1 | 1,2 | 1,5 | 2 | 2,5 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 15 | 20 | 25 | 30 | | | | | |
|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 4 | 0,7 | 3,1 | 40 | 105 | | | | | | | | | | | | | | | | | | | | | |
| 6 | 0,9 | 4,7 | 26 | 69 | 106 | 153 | | | | | | | | | | | | | | | | | | | |
| 8 | 1,5 | 6,2 | 20 | 55 | 80 | 115 | 180 | | | | | | | | | | | | | | | | | | |
| 10 | 1,7 | 8 | | 41 | 65 | 95 | 145 | 260 | | | | | | | | | | | | | | | | | |
| 12 | 2 | 9,5 | | | 55 | 80 | 120 | 215 | 335 | | | | | | | | | | | | | | | | |
| 16 | 2,7 | 13 | | | | 60 | 90 | 160 | 250 | 360 | | | | | | | | | | | | | | | |
| 20 | 3,4 | 16 | | | | | 75 | 130 | 200 | 290 | 520 | | | | | | | | | | | | | | |
| 24 | 3,9 | 19 | | | | | | 106 | 166 | 240 | 426 | 666 | | | | | | | | | | | | | |
| 30 | 5 | 24 | | | | | | | 140 | 190 | 340 | 540 | 770 | | | | | | | | | | | | |
| 35 | 6 | 27 | | | | | | | | 170 | 300 | 460 | 660 | | | | | | | | | | | | |
| 40 | 7 | 31 | | | | | | | | | 150 | 260 | 400 | 580 | 1030 | | | | | | | | | | |
| 50 | 8,5 | 39 | | | | | | | | | | 210 | 320 | 460 | 820 | 1280 | | | | | | | | | |
| 55 | 9 | 43 | | | | | | | | | | | 300 | 420 | 750 | 1170 | | | | | | | | | |
| 60 | 10 | 47 | | | | | | | | | | | | 270 | 390 | 690 | 1070 | | | | | | | | |
| 70 | 11,7 | 54 | | | | | | | | | | | | | 330 | 590 | 920 | 1320 | | | | | | | |
| 80 | 13,5 | 62 | | | | | | | | | | | | | | 290 | 520 | 800 | 1160 | 1800 | | | | | |
| 90 | 15 | 70 | | | | | | | | | | | | | | | 460 | 710 | 1030 | 1600 | | | | | |
| 100 | 17 | 77 | | | | | | | | | | | | | | | | 410 | 640 | 930 | 1440 | | | | |
| 120 | 20 | 93 | | | | | | | | | | | | | | | | | 540 | 770 | 1200 | | | | |
| 140 | 4 | 108 | | | | | | | | | | | | | | | | | | 660 | 1030 | 1830 | | | |
| 160 | 27 | 124 | | | | | | | | | | | | | | | | | | | 900 | 1600 | 2500 | | |
| 200 | 34 | 144 | | | | | | | | | | | | | | | | | | | | 1280 | 2000 | 2880 | |
| 240 | 40 | 185 | | | | | | | | | | | | | | | | | | | | | 1070 | 1670 | 2400 |

$T=450\text{N/mm}^2$ (C=1)
P(kN/m)

= optimal condition



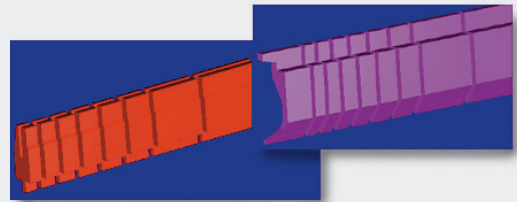
Cadman®-B Bending Software

TOOL DATABASE

Tools can be defined by a free shape drawing or a drawing in DXF format. The tool parameters and additional information can be stored in a database for compositions of stations.

AUTOMATIC TOOLING SET-UP ACCORDING TO THE PART

The system automatically calculates the minimum station quantity required to bend the part and indicates the position to set up tooling. The station gaps and punch horns are automatically applied, if needed.

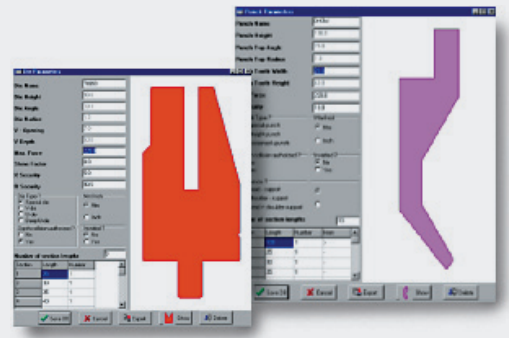


Compositions of stations

| Station | 1 | 2 | 3 | 4 |
|---------|-----------|-----------|-----------|-----------|
| Eq# | V123_F10W | V123_F10W | V123_F10W | V123_F10W |
| → | 150 | 700 | 1800 | 2254 |
| ← | 363 | 713 | 233 | 233 |

| Eq# | V123_F10W | V123_F10W | V123_F10W | V123_F10W |
|-----|-----------|-----------|-----------|-----------|
| → | 153 | 708 | 1800 | 2254 |
| ← | 363 | 713 | 203 | 203 |
| → | 513 | 1413 | 2003 | 2467 |

Tool parameters' dialogue



HEADQUARTERS

LVD Company nv

Nijverheidslaan 2
B-8560 GULLEGEM
BELGIUM
Tel. +32 56 43 05 11
Fax +32 56 43 25 00
E-mail: marketing@lvd.be

Strippit Inc.

12975 Clarence Center Rd.
USA-AKRON NY 14001
UNITED STATES
Tel. +1 716 542 4511
Fax +1 716 542 5957
E-mail: marketing@strippit.com

JOINT VENTURES

LVD-HD

Huangshi City,
Hubei Province, China

SUBSIDIARIES*

LVD BeNeLux nv

Gullegem, Belgium

LVD do Brasil Ltda.

Joinville, Brazil

LVD GmbH

Lahr, Germany

LVD Italia s.r.l.

Parma, Italy

LVD Korea

Inchon City, Korea

LVD Malaysia Sdn Bhd

Shah Alam, Malaysia

LVD Polska Sp. z.o.o.

Kedzierzyn-Kozle, Poland

LVD Pullmax Limited

Oxfordshire, United Kingdom

LVD S2/S3

Tornala, Slovakia

LVD s.a.

Raismes, France

LVD-Strippit Shanghai Co. , Ltd.

Shanghai, China

LVD Thailand Limited

Bangkok, Thailand

Magal LVD India Pvt. Ltd

Bangalore, India

P.T. LVD Center

Jakarta, Indonesia



In other countries LVD products are distributed by agents. For full address details of your local subsidiary or agent, please visit our website: www.lvdgroup.com