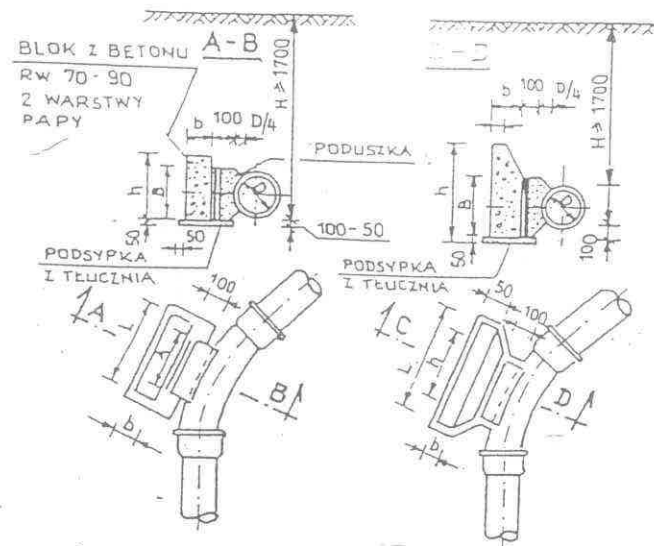
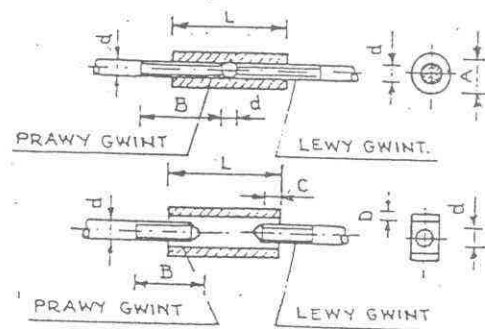


# BLOK OPOROWY BET.

φ 100 200 φ 250 200



SZCZEGÓŁ ZAKOTWIENIA PRĘTÓW



WYMIARY ZŁĄCZY I UCHWYTÓW

| ŚREDN. UCHWYTU<br>d mm | TYP I |     |     |  | TYP II |     |   |    |
|------------------------|-------|-----|-----|--|--------|-----|---|----|
|                        | A     | L   | B   |  | A      | L   | C | B  |
| 10                     | 23    | 90  | 55  |  | 21     | 90  | 5 | 15 |
| 13                     | 29    | 100 | 55  |  | 25     | 100 | 5 | 20 |
| 16                     | 35    | 125 | 85  |  | 32     | 125 | 6 | 25 |
| 19                     | 41    | 150 | 90  |  | 38     | 150 | 6 | 30 |
| 22                     | 44    | 175 | 110 |  | 44     | 175 | 8 | 36 |
| 25                     | 51    | 200 | 120 |  | 51     | 200 | 8 | 40 |

GRUNTY MOKRE

| ŚREDN. TRÓJN. | A mm | B mm | CIŚN. PROB. 7,5 |      |      | CIŚN. PROB. 15 |      |      |
|---------------|------|------|-----------------|------|------|----------------|------|------|
|               |      |      | h mm            | L mm | b mm | h mm           | L mm | b mm |
| 300/300       | 700  | 400  | 600             | 1350 | 400  | 800            | 1800 | 400  |
| 300/250       | 600  | 300  | 600             | 900  | 400  | 750            | 1400 | 400  |
| 250/250       | 500  | 250  | 400             | 800  | 300  | 600            | 1150 | 300  |
| 250/200       | 400  | 240  | 400             | 500  | 300  | 500            | 800  | 300  |
| 200/200       | 300  | 200  | 300             | 300  | 250  | 300            | 500  | 250  |

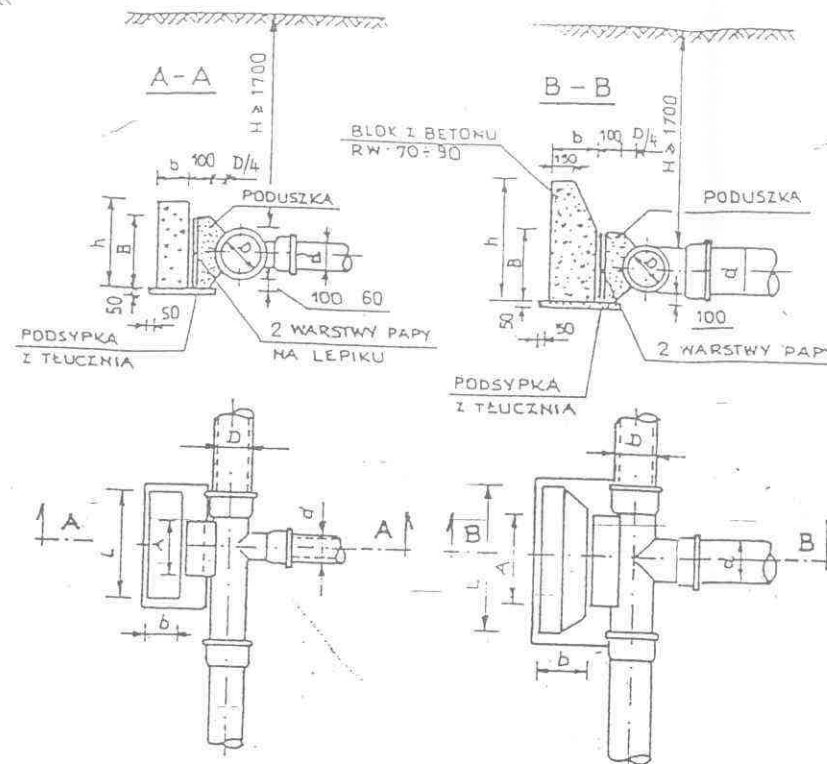
GRUNTY SUCHY I WILGOTNE

| ŚREDN. TRÓJN. A | B   | CIŚN. PROB. 7,5 |      |      | CIŚN. PROB. 15 |      |      |
|-----------------|-----|-----------------|------|------|----------------|------|------|
|                 |     | h mm            | L mm | b mm | h mm           | L mm | b mm |
| 300/300         | 700 | 400             | 600  | 850  | 400            | 800  | 1250 |
| 300/250         | 600 | 300             | 400  | 850  | 300            | 650  | 1100 |
| 250/250         | 500 | 250             | 300  | 750  | 300            | 350  | 900  |
| 250/200         | 400 | 200             | 300  | 450  | 300            | 350  | 600  |
| 200/200         | 300 | 200             | 300  | 300  | 250            | 300  | 400  |

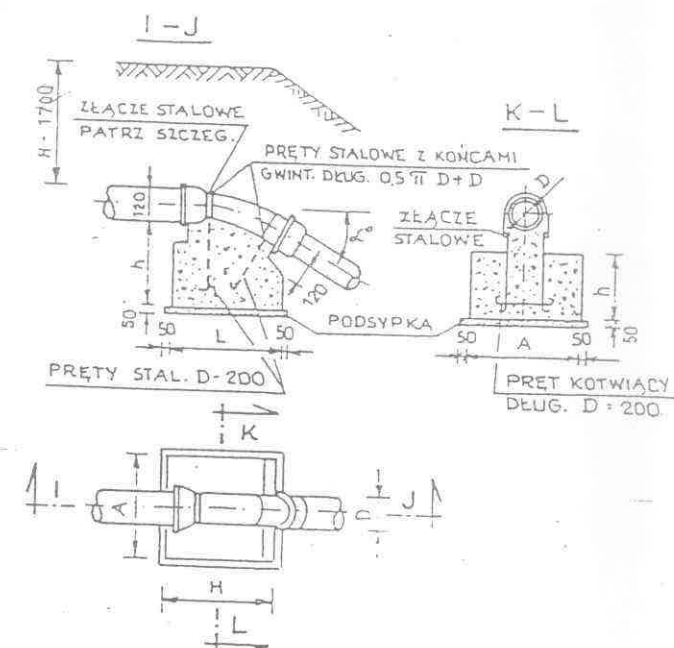
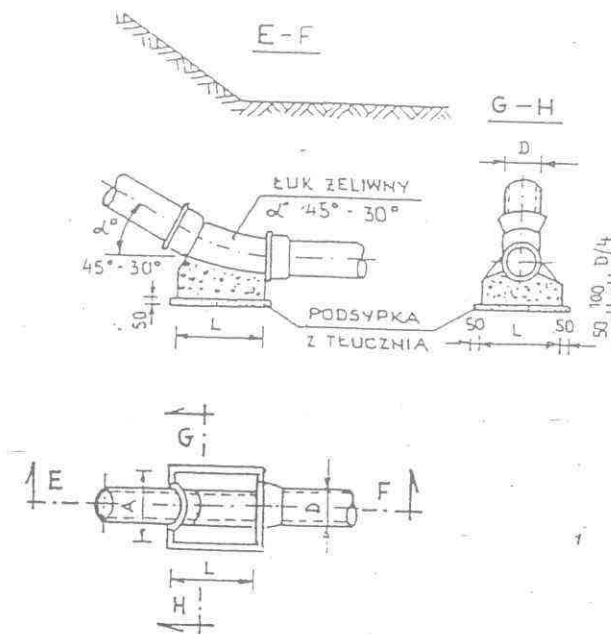
# BLOK OPOROWY PRZY:

$h \leq 0,35$

$h \leq 0,35$



# BLOK PRZY ZAŁAMANIU TRASY WODOCIĄGOWEJ



GRUNTY SUCHY I WILGOTNE

| WEWN. ŚREDN. mm | KAT. ZŁ. α | A mm | B mm | CIŚN. PROB. 7,5 |      |      | CIŚN. PROB. 15 |      |      |
|-----------------|------------|------|------|-----------------|------|------|----------------|------|------|
|                 |            |      |      | h mm            | L mm | b mm | h mm           | L mm | b mm |
| 100             | 90         | 300  | 200  | 200             | 300  | 200  | 300            | 550  | 250  |
| 150             | 90         | 400  | 200  | 300             | 770  | 250  | 400            | 1040 | 380  |
| 200             | 90         | 600  | 250  | 450             | 1040 | 250  | 600            | 1290 | 380  |
| 250             | 90         | 750  | 300  | 600             | 1290 | 380  | 650            | 1540 | 570  |
| 300             | 90         | 800  | 400  | 650             | 1420 | 380  | 950            | 1690 | 510  |

WYMIARY BLOKÓW I UCHWYTÓW

| WEWN. ŚREDN. mm | KAT. ZŁ. α | CIŚN. PROB. 7,5 d1m |      |      | CIŚN. PROB. 15 d1m |      |      |
|-----------------|------------|---------------------|------|------|--------------------|------|------|
|                 |            | h mm                | A mm | L mm | h mm               | A mm | L mm |
| 100             | 45         | 350                 | 500  | 600  | 300                | 500  | 600  |
| 150             | 45         | 350                 | 600  | 600  | 300                | 800  | 800  |
| 200             | 45         | 500                 | 800  | 800  | 300                | 1000 | 1000 |
| 250             | 45         | 700                 | 900  | 900  | 300                | 1100 | 1100 |
| 300             | 45         | 800                 | 1100 | 1100 | 300                | 1300 | 1300 |

WYMIARY BLOKÓW

| ŚREDN. WEWN. D mm | KAT. ZŁ. α | CIŚN. PROB. 7,5 |      |      | CIŚN. PROB. 15 |      |      |
|-------------------|------------|-----------------|------|------|----------------|------|------|
|                   |            | h mm            | A mm | L mm | h mm           | A mm | L mm |
| 100               | 45         | 100             | 300  | 300  | 100            | 300  | 300  |
| 150               | 45         | 100             | 350  | 350  | 150            | 400  | 400  |
| 200               | 45         | 100             | 500  | 500  | 200            | 600  | 600  |
| 250               | 45         | 150             | 550  | 550  | 250            | 700  | 700  |
| 300               | 45         | 150             | 600  | 600  | 250            | 750  | 750  |

# BLOKI OPOROWE

ZAKŁAD PRODUKCYJNO-USŁUGOWY  
Inżynierii Sanitarnej i Ochrony Środowiska  
"Hubertus"  
87-100 TORUŃ, ul. Storczykowska 54  
NIP 956-139-14-68

OBIEKT: Chelmża ul. Wodna  
Sądowa, Strzelecka i Browarna  
Działki Nr 131, 134, 145, 147  
WYMIANA SIECI WODOCIĄGOWEJ  
Z PRZŁĄCZAMI DO BUDYNKÓW

DATA: LUTY 2010  
NR. RYS.: 9/9

OPRACOWAŁ: inż. Hubert Rynkowski  
upr. bud. do projektowania i kierowania  
robotami budowlanymi bez ograniczeń  
w zakresie instalacji sieci w k. ow. g. z  
nr ew. upr. BP-RN-V/56/TD/84

PODPIS: