# Questionnaire for Waterhammer Calculation

GESTRA

**Fluid** _____

| | | |
|---|---|---|
| Temperature | _____ | °C |
| Density | _____ | kg/m³ |
| Service pressure $P_B$ | _____ | bar (g) |
| max. discharge capacity | _____ | m³/h |
| min. discharge capacity | _____ | m³/h |

**Check Valve**

Type BB _____

Nominal pressure ○ PN ○ Class _____

Nominal size $DN_R$ ○ mm ○ inch _____

Springs ○ 7 WA ○ 2 WA ○ 5 VO

**Position of installation**

| | |
|---|---|
| In horizontal lines | ○ |
| In vertical lines | ○ |
| In vertical lines | ○ |

**Pump**

Manufacturer _____

Type _____

Moment of inertia _____ kgm²

Number of revs _____ 1/min. (rpm)

**Electric drive**

Manufacturer _____

Type _____

Moment of inertia _____ kgm²

Number of revs _____ 1/min. (rpm)

**Schematic layout**

○ Single-pump

○ Single-pump with air vessel

○ Multi-pump

Size of suction line $DN_S$ _____ mm

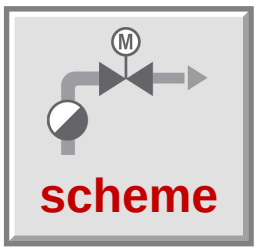
Size of discharge line $DN_F$ _____ mm

○ Suction lift $H_S$ _____ m

○ Suction head $H_z$ _____ m

**Lengths of pipeline**

| | | | |
|---|---|---|---|
| Single-pump line | $L_1 + L_2 + L_3$ | $= L$ | _____ m |
| Pipeline with air vessel | $L_3 + L_4$ | $= L_W$ | _____ m |
| Multi-pump line | $K_1$ bis $K_2$ | $= L_K$ | _____ m |

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**Your details:**

| |
|---|
| Company |
| Name / job title |
| Telephone |
| Fax |
| E-mail |
| Date |

## Single-pump line

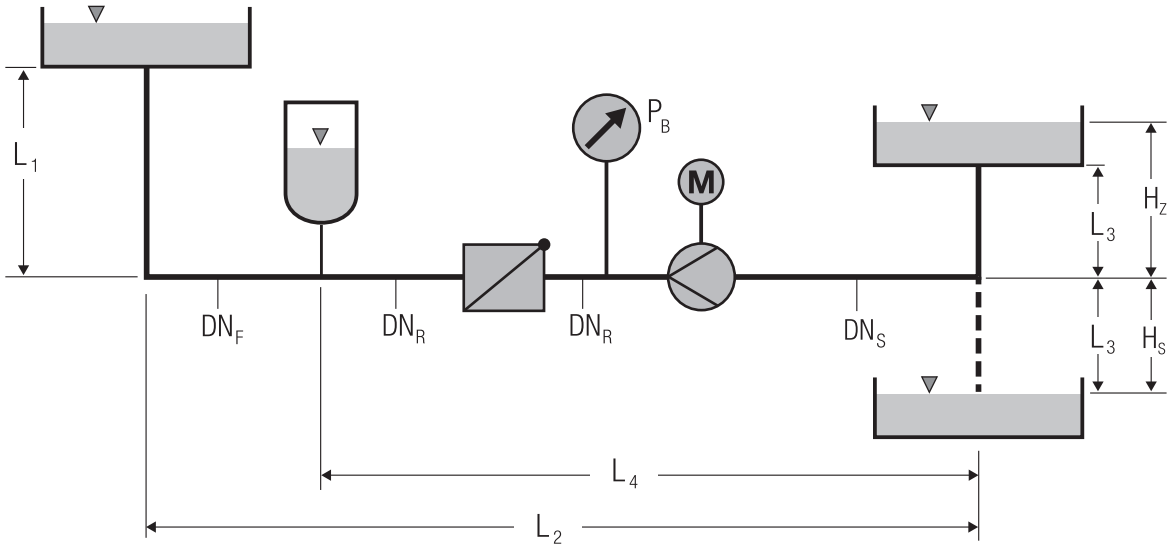
Single-pump line **without** air vessel:

Length of pipeline L: $L = L_1 + L_2 + L_3$

Suction head $H_Z$ or Suction lift $H_S$

Single-pump line **with** air vessel: $L_W = L_3 + L_4$

Length of pipeline $L_W$: Suction head $H_Z$ or Suction lift $H_S$




$DN_F$ - Nominal size of discharge line

$DN_R$ - Nominal size of check valve

$DN_S$ - Nominal size of suction line

$P_B$ - Service pressure

## Multi-pump line

Length of pipeline $L_K$: $L_K = K_1$ bis $K_2$

Suction head $H_Z$ or Suction lift $H_S$