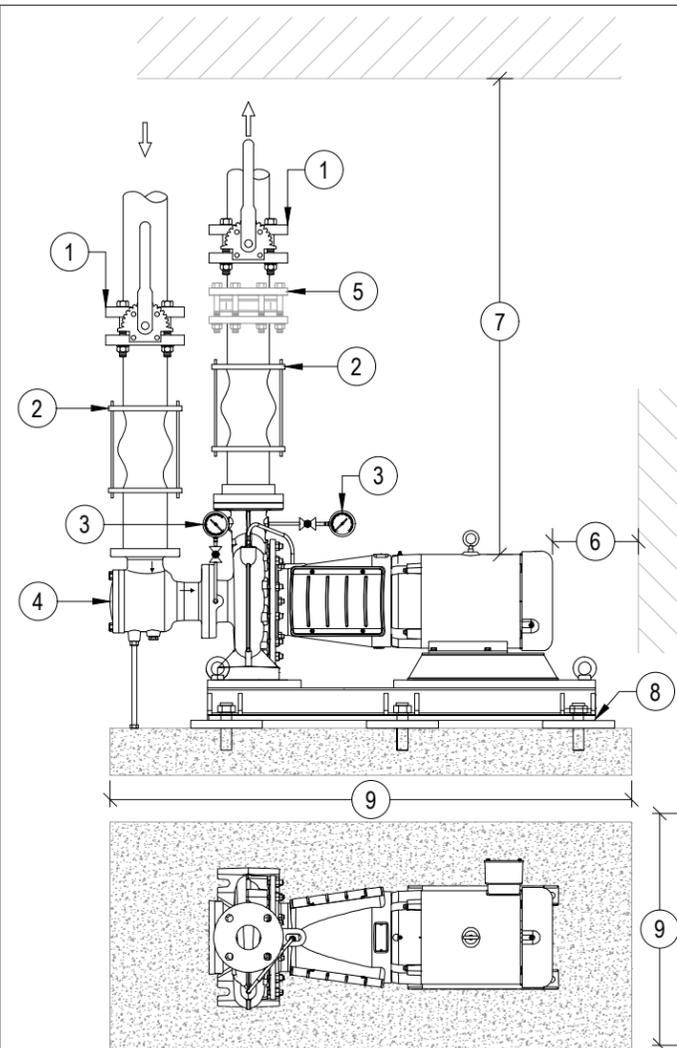


**GENERAL NOTES**

- ① - TWO (2) BUTTERFLY VALVES, SEE PLANS FOR LINE SIZE. [5.2.2 AND 5.2.3]
- ② - RUBBER OR METAL EXPANSION JOINT ARE TO BE INSTALLED A MINIMUM OF 1 PIPE DIAMETER FROM THE SUCTION DIFFUSER INLET AND PUMP OUTLET FLANGE. IF 4" PIPE SIZE OR LARGER USE EXPANSION JOINTS WITH LIMITING RODS. [5.3]
- ③ - INSTALL ONE (1) PRESSURE GAUGES WITH ISOLATION VALVE ON OUTLET AND ONE (1) MANO-VACUUM GAUGE WITH ISOLATION VALVE ON THE INLET. VALVES ARE TO BE REGULARLY CLOSED AND ONLY OPENED TO GATHER READING. [5.4.1]
- ④ - SUCTION DIFFUSER, INLET TO MATCH LINE SIZE AND DISCHARGE TO MATCH INLET PUMP SIZE. SEE PLANS FOR COORDINATED SIZES. ENSURE SUCTION DIFFUSER IS PROPERLY SUPPORTED ON CONCRETE PAD.
- ⑤ - OPTIONAL CHECK VALVE. SEE PLANS FOR COORDINATED LINES SIZES.
- ⑥ - FOR ALL SIZES PROVIDE A MINIMUM OF 12" OF CLEARANCE. [4.1.1]
- ⑦ - FOR SELECTIONS 7.5 HP AND UP PROVIDE A MINIMUM OF 40" OF CLEARANCE FOR LIFTING EQUIPMENT. [4.1.1]
- ⑧ - PUMP IS DIRECTLY MOUNTED TO 4" CONCRETE HOUSE KEEP PAD USING EMBEDDED ANCHOR BOLTS. ENSURE PUMP IS PROPERLY LEVEL PRIOR TO OPERATION. NO GROUTING REQUIRED. [5.1.1 AND 5.1.2]
- ⑨ - CONCRETE HOUSE KEEPING PAD MUST BE A MINIMUM OF 8" LARGER THAN THE OVERALL LENGTH AND WIDTH OF PUMP AND INCLUDE SUCTION DIFFUSER SUPPORT STAND. [5.1]

**1** END-SUCTION PUMP DETAIL  
SCALE: NTS



**GENERAL NOTES**

- ① - TWO (2) BUTTERFLY VALVES, SEE PLANS FOR LINE SIZE. [5.2.2 AND 5.2.3]
- ② - RUBBER OR METAL EXPANSION JOINT ARE TO BE INSTALLED A MINIMUM OF 1 PIPE DIAMETER FROM THE SUCTION DIFFUSER INLET AND PUMP OUTLET FLANGE. IF 4" PIPE SIZE OR LARGER USE EXPANSION JOINTS WITH LIMITING RODS. [5.3]
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- ⑤ - OPTIONAL CHECK VALVE. SEE PLANS FOR COORDINATED LINES SIZES.
- ⑥ - FOR ALL SIZES PROVIDE A MINIMUM OF 12" OF CLEARANCE. [4.1.1]
- ⑦ - FOR SELECTIONS 7.5 HP AND UP PROVIDE A MINIMUM OF 40" OF CLEARANCE FOR LIFTING EQUIPMENT. [4.1.1]
- ⑧ - PUMP IS BASE FRAME MOUNTED TO 4" CONCRETE HOUSE KEEP PAD USING EMBEDDED ANCHOR BOLTS. ENSURE PUMP IS PROPERLY LEVEL PRIOR TO OPERATION. NO GROUTING REQUIRED. [5.1.1 AND 5.1.3]
- ⑨ - CONCRETE HOUSE KEEPING PAD MUST BE A MINIMUM OF 8" LARGER THAN THE OVERALL LENGTH AND WIDTH OF PUMP AND INCLUDE SUCTION DIFFUSER SUPPORT STAND. [5.1]

**2** BASE FRAME END-SUCTION PUMP DETAIL  
SCALE: NTS



DRAWING TITLE:  
GRUNDFOS NBS PUMP-VERTICAL SUPPLY DETAIL

DRAWING NUMBER:  
000003-A

DRAWN BY BM	LAST REVISED 08.30.21	DRAWING SCALE NTS
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GENERAL NOTES / COMMENTS

1. DETAILS CAN BE CUSTOMIZED TO YOUR SPECIFIC APPLICATION, PLEASE CONTACT BRIAN MCNEIL (BRIAN@HURLEYENGINEERING.COM) AT HURLEY ENGINEERING WITH YOUR REQUEST.