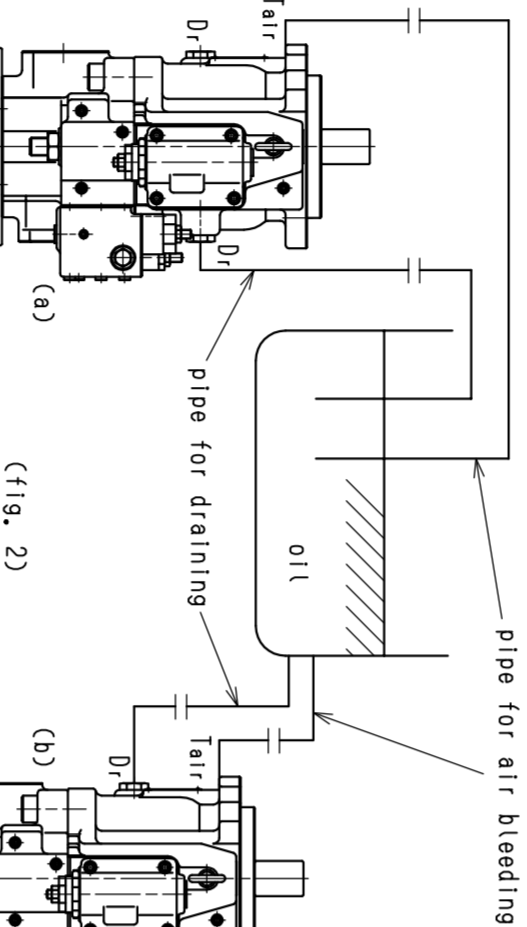
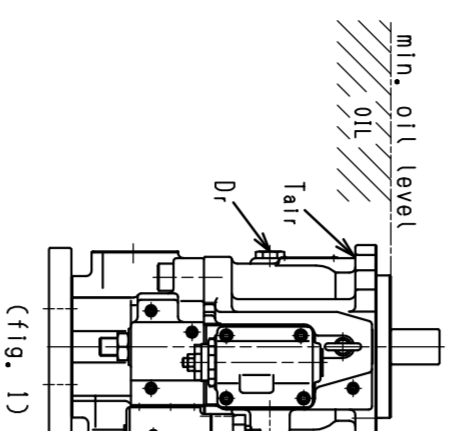


Part name	Port size	Oil delivery	Tightening torque (N·m)
A Delivery port	SAE J5180 Std. pressure (code 61) 1"	Covered with tape	57 (42.0)
B Suction port	SAE J5180 Std. pressure (code 61) 2"	Covered with tape	98 (72.3)
D _i Drain port	SAE J1926/7 Straight thread O-Ring boss 1/2" 0. 0 Tube 3/4-16UNF-2B	Attached with steel plug	98 (72.3)
P _L Load sensing port (Type L0/L1)	SAE J1926/7 Straight thread O-Ring boss 1/4" 0. 0 Tube 7/16-20UNF-2B	Attached with steel plug	12 (8.8)
P _C Pressure control port (Type P0)	SAE J1926/7 Straight thread O-Ring boss 1/4" 0. 0 Tube 7/16-20UNF-2B	Attached with steel plug	12 (8.8)
T _{air} Air bleeder port	1/4" 0. 0 Tube 7/16-20UNF-2B	Attached with steel plug	12 (8.8)

Notes on mounting and operation

- The pump shaft and flange surfaces should be cleaned. Remove an anti-rust material.
- Do not apply any form of axial loading to the pump shaft.
- The uppermost drain port should be used and the drain piping should be so connected as to keep the casing filled with oil.
- Keep the casing pressure below 1 bar (14 psi) normally, and below 4 bar (58 psi) at its peak.
- Make sure the drain piping led into the oil tank is kept below the surface of the oil (to prevent aeration).
- Make sure the suction pressure in the suction flange is kept above 0 bar (0 psi) normally.
- Mineral antiwear type hydraulic oil should be used.
- For satisfactory service life of the pump in application, the operating fluid should be continuously filtered to a minimum cleanliness level of MAS1638 class 9 or 18/15 to ISO-DIS 4406.
- Provide a 150 mesh (100µm) strainer in the suction line.
- Install a 10µm filter in the return line.
- Allowable oil temperature range: -20~95°C.
- Oil viscosity range: 10~100cSt when 200~1000cSt, take warming up before real working.
- Gaution for the vertical mounting.
The oil level in the tank should be upper than the pump mounting flange. (Fig. 1)
If the oil level is lower than the pump level, forced lubrication should be made from the air bleeder port. (flow 1~2 l/min)
- Installation within a tank
 - Open the drain port and the air bleeder port.
 - Installation outside a tank (Fig. 2)
 - Pipe the drain port and the air bleeder port to tank.
 - If the pipe for draining or air bleeding is upper than the oil level, it should be filled with oil before starting the pump.



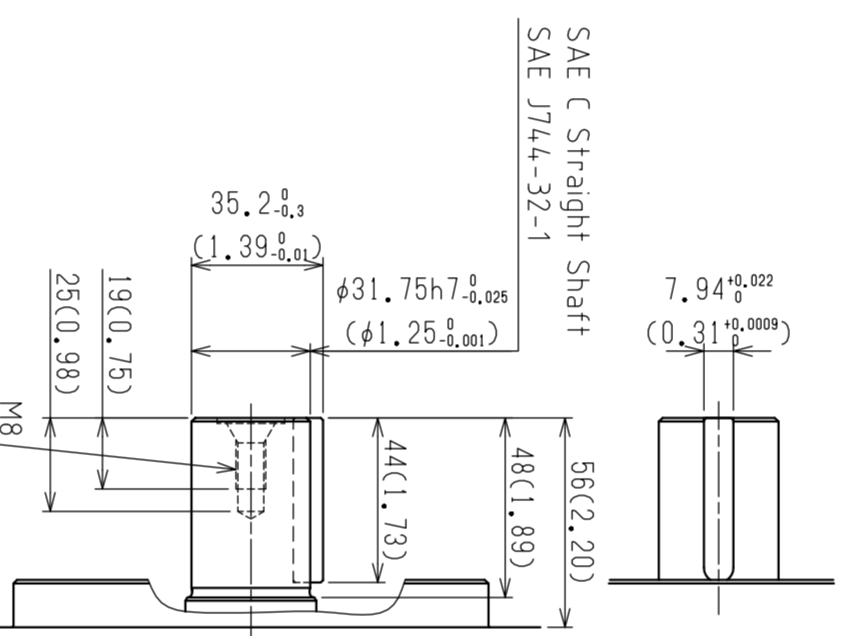
Adjustment screw for cut-off pressure
Approx. pressure change per revolution of screw : 80 bar (1160 psi)

Adjustment screw for differential pressure
Approx. pressure change per revolution of screw : 13 bar (188 psi)

Lock-nut tightening torque = 15.7 N·m

In case of K3VL80/B-1BLK/S

Use the thread for fixing the coupling.
Never use a hammer.



SAE C 30° Involute Spine Shaft
SAE J744-32-4, 1/1 1/2, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 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