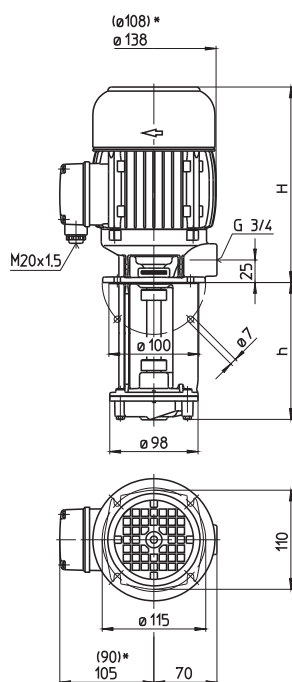


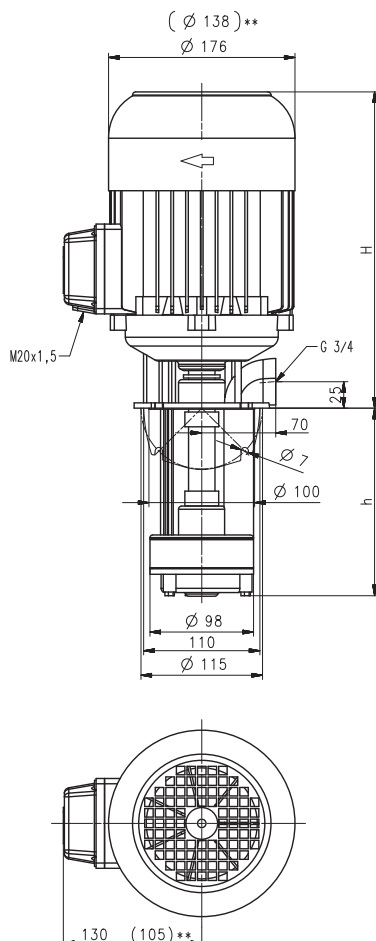
## TS12...TS24

### Peripheral impellers

#### TS12, 13, 21, 22



#### TS15, TS24



\*) Dimensions for TS12, 13  
 \*\*) Dimensions for TS15

Type	Vol. del. at manom. del. head l/min / m	Height H mm	Depth of immersion h mm	Weight kg	Power kW	Voltage 3~ V	Fre- quen- cy Hz	Rated current A	Speed 1/min
TS12/110	20/10	178	110	5.4	0.27	220-240	50	1.10	2800
	150		150	5.6		380-420	50	0.63	2800
	190		190	5.8		460	60	0.63	3300
	250		250	6.1					
	300		300	6.5					
TS13/110	20/15	211	110	6.3	0.4	220-240	50	1.55	2700
	150		150	6.5		380-420	50	0.90	2700
	190		190	6.7		460	60	0.90	3200
	250		250	7.0					
	300		300	7.4					
TS15/190	20/35	255	190	12.2	1.1	220-240	50	5.0	2700
	220		220	12.6		380-420	50	2.9	2700
						460	60	2.9	3300
TS21/110	40/15	217	110	7.8	0.63	220-240	50	2.6	2750
	150		150	8.0		380-420	50	1.5	2750
	190		190	8.2		460	60	1.5	3250
	250		250	8.5					
	300		300	8.9					
	350		350	9.3					
TS22/110	40/25	235	110	9.7	0.92	220-240	50	4.7	2700
	150		150	9.9		380-420	50	2.7	2700
	190		190	10.1		460	60	2.7	3300
	250		250	10.4					
	300		300	10.8					
350		350	11.2						
TS24/140	40/35	300	140	20	1.7	220-240	50	7.1	2850
	180		180	21		380-420	50	4.1	2850
	220		220	22		460	60	4.1	3400


### Immersion Pumps

Models TS12 to TS24 are suitable for **CNC machine tools** featuring coolant supply through the tool holder or driving spindle or equipped with internally cooled tool.

These pumps are equipped with a peripheral impeller to achieve a compact high pressure unit.

Series TS are suitable for filtered coolant only.

To reduce pump pressure, models TS22 to TS24 are also available with an optional Y/YY (Dahlander) motor configuration for 4 pole operation at half speed.

 Special versions of the TS pumps can be supplied for use with temperature controlling systems carrying thermal oils of up to 150° C resp. 200° C.



### Applications

Types of fluid  
coolants  
cooling/cutting oils  
Kinematic viscosity  
...90 mm<sup>2</sup>/s (90 cSt)  
Pumping temperature  
0...80° C  
...150° C (200° C) as special make (TS)

### Construction

Pump body	cast iron
Cover	cast iron
Impellers	brass
Shaft	steel
Optional:	
Pump body	bronze (TS12...TS13, TS21...TS22)
Cover	bronze (TS12...TS13, TS21...TS22)
Impellers	CrNi-steel (TS12...TS22)

### Noise level

TS12...TS13	54 dBA
TS21...TS22	64 dBA
TS15	66 dBA
TS24	67 dBA

