

# SPK, CHK, MTH, CRK, MTR, MTA

## Immersible pumps

Pumping of coolants and lubricants for machine tools, condensate transfer, etc.

Mounting flange size and discharge dimensions in accordance with DIN 5440.

**50 Hz and 60 Hz**



TM01 6010 3800

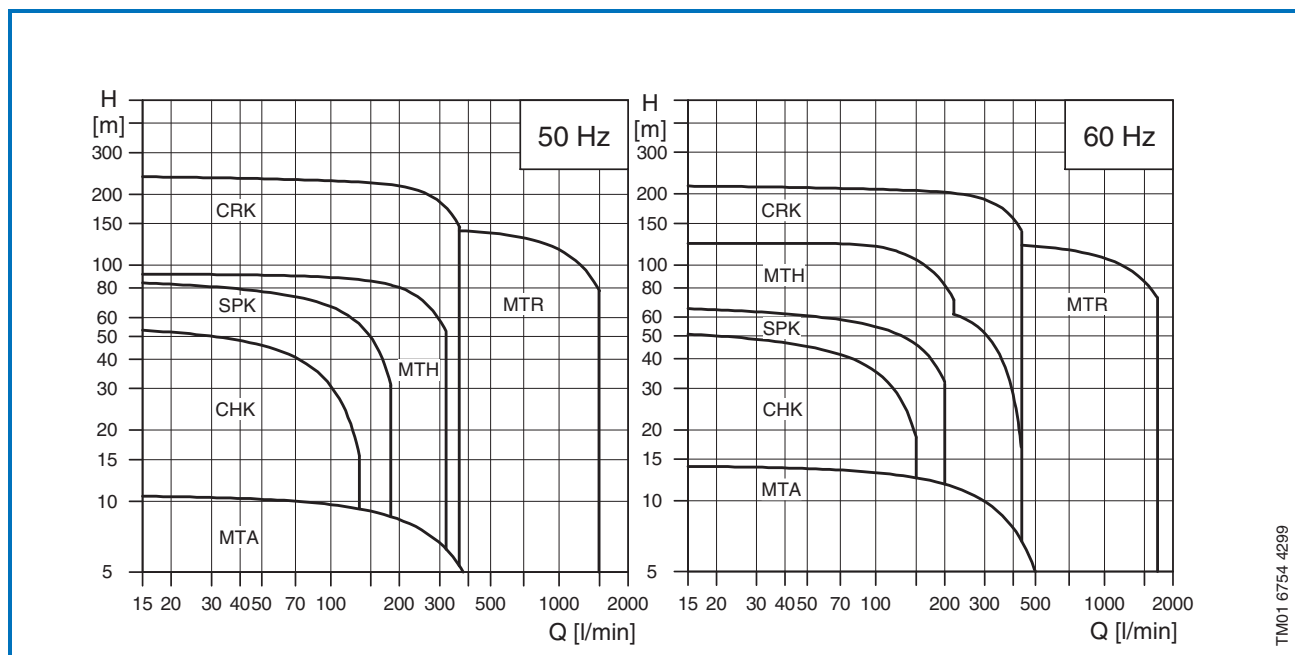
**GRUNDFOS®**



# General data

Immersible pumps

## Performance range



TM01 6754 4299

## Applications

The pumps are designed for pumping cooling lubricants for machine tools, condensate transfer and other purposes. The pumps are designed for low to high pressure and are very flexible as to installation length.

- spark machine tools,
- grinding machines,
- machining centres,
- cooling units,
- industrial washing machines,
- filtering systems
- lathes
- swarf conveyors.

## Features

- Flexible installation length
- Wide range
- Strong and sturdy construction
- Reliable
- Service friendly

## Pump

Multistage, centrifugal pumps with mechanical shaft seal according to DIN 24960. Mounting flange sizes according to DIN 5440. To meet specific depths of tanks or containers, the installation length of the pump can be varied using empty chambers.

The pump is fitted with a totally enclosed, fan-cooled standard motor with principal dimensions according to

IEC, DIN and British standards.

Some pump types are also available with variable speed motors, type MGE.

Multi-plug can be supplied on request on motors up to 7.5 kW.

A drain hole in the motor stool ensures that any leakage from the shaft seal will be led back into the tank.

## Pumped liquids

Thin, clean, non-explosive liquids without abrasive particles or fibres. Both water and water-soluble coolants and cutting lubricants can be pumped.

## Operating conditions

Flow	Max. 102 m <sup>3</sup> /h
Head	Max. 24 bar
Liquid temperature	-20°C to +90°C
Operating pressure	Max. 25 bar Operating pressure = inlet pressure + pressure against closed valve (Q = 0)

# General data

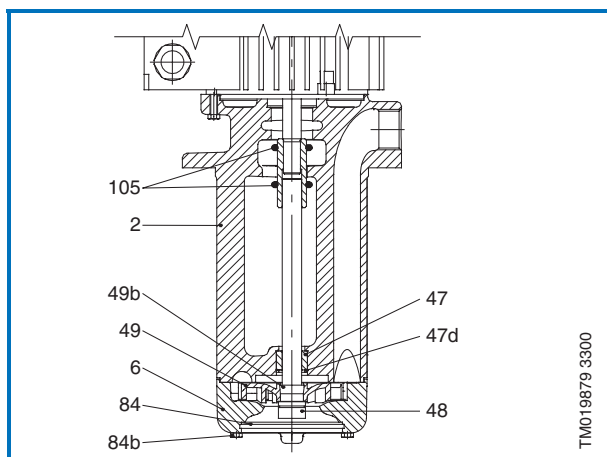
Immersible pumps

## Product range

Description	SPK 1, 2, 4	SPK 8	CHK/MTH 2, 4	MTH 8, 12, 16	CRK 2, 4	CRK 8, 16	MTR 32	MTR 45, 64	MTA 3	MTA 4	MTAD 7/7	
<b>Material variants</b>												
Motor stool/pump head: Cast iron: DIN W.-Nr. 0.6020, ASTM 25B	•	•	•	•	•	•	•	•				
Motor stool/pump head: Cast iron: DIN W.-Nr. 0.6015, ASTM 30B									•	•	•	
(I-version) Motor stool/ pump head: Stainless steel: DIN W.- Nr. 1.4408, AISI 316LN	•	•			•	•						
<b>Pipe connection</b>												
Rp ¾	•		•						•	•		
Rp 1 ¼		•		•	•						•	
Rp 2						•						
DN 65							•	•				
DN 80								•				
Special flange (rectangular)	•	•		•	•							
<b>Installation length [mm]</b>												
	A	ø100	ø140	ø140	ø180	ø140	ø200	ø190	ø240	ø98	ø118	ø138
	B	140-1005	140-1005	145-307	60-255	160-1005	148-808	223-1063	244-1074	180	250	250
<b>Shaft seal</b>												
CVUV	•	•										
CVBV	•	•	•									
AUUV	•	•	•	•	•	•						
BUBV					•							
EUUV							•	•				
TDKV, MTH 2 & 4 only			•									
<b>Miscellaneous features</b>												
Impeller locked by spline	•	•	•	•	•	•						
Impeller locked by split cone							•	•				
Variable-speed motor (MGE) ≤ 7.5 kW*	•	•			•	•	•	•				
Multi-plug*	•	•	•	•	•	•			•	•	•	
Two separate outlets											•	

\* On request

## Sectional drawing - MTA



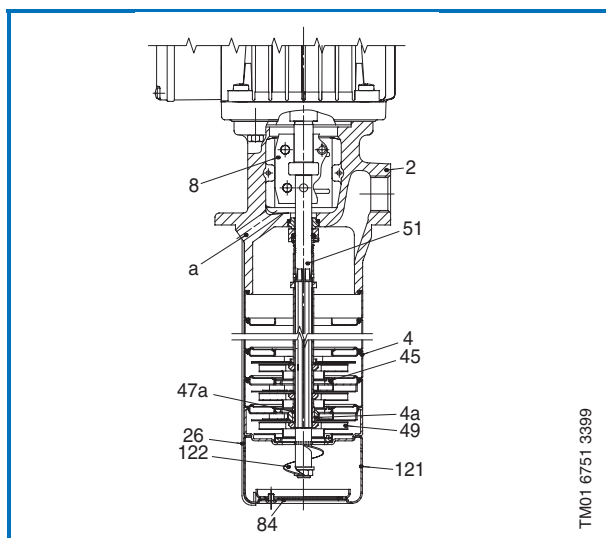
## Materials - MTA

Pos.	Description	Materials	DIN W. -Nr.	AISI/ASTM
2	Motor stool	Cast iron GG15	0.6015	ASTM 30 B
6	Pump housing	Cast iron GG15	0.6015	ASTM 30 B
47	Bearing	Filled PTFE	-	-
47d	Retaining ring	Stainless steel	1.4305	AISI 304
48	Split cone nut	Stainless steel	1.4401	AISI 316
49	Impeller	Stainless steel	1.4408	AISI 316
49b	Split cone	Stainless steel	1.4301	AISI 304
84	Strainer	Stainless steel	1.4301	AISI 304
84b	Hexagon socket head screw	Stainless steel	1.4301	AISI 304
105	O-ring	NBR		

# General data

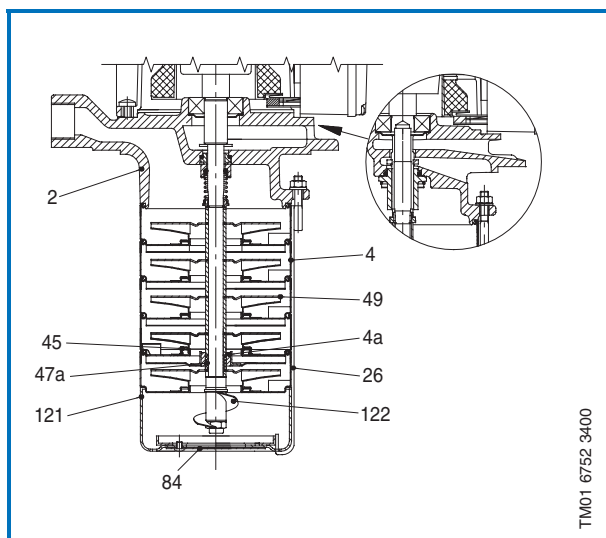
Immersible pumps

## Sectional drawing - SPK



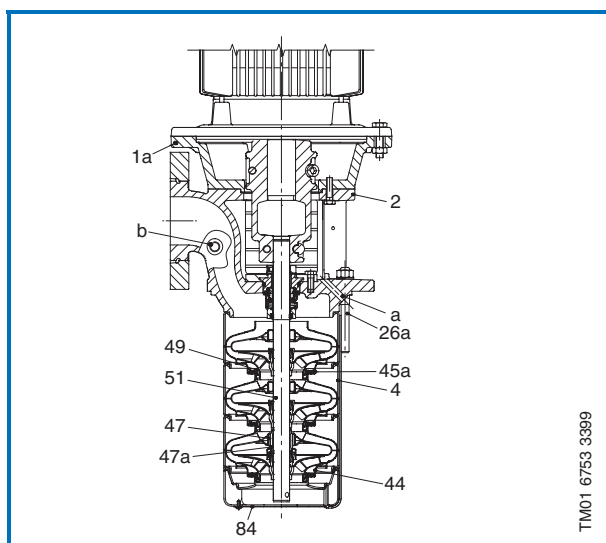
TM01 6751 3399

## Sectional drawing - CHK, MTH



TM01 6752 3400

## Sectional drawing - CRK, MTR



TM01 6753 3399

## Materials - SPK

Pos.	Description	Materials	DIN W.-Nr.	AISI/ASTM
2	Motor stool	Cast iron GG20	0.6020	ASTM 25B
		Stainless steel	1.4408	AISI 316LN
4	Chamber	Stainless steel	1.4301	AISI 304
4a	Bearing in chamber	Ceramic Al <sub>2</sub> O <sub>3</sub> 95-100% Hilox		
8	Coupling	Cast iron GG40	0.7040	ASTM 60-40-18
		Sinter metal		
26	Strap	Stainless steel	1.4301	AISI 304
45	Neck ring	Ryton, R4XT		
	Neck ring, SPK 8	Tin/bronze	2.1020.10	
47a	Bearing ring	Tungsten carbide		
49	Impeller	Stainless steel	1.4301	AISI 304
51	Spline shaft	Stainless steel	1.4057	AISI 431
84	Filter	Stainless steel	1.4301	AISI 304
121	Suction interconnector	Stainless steel	1.4301	AISI 304
122	Priming screw	Stainless steel	1.4401	AISI 316
a	Drain hole, 1/8" *			

\* no drain hole for central Europe

## Materials - CHK, MTH

Pos.	Description	Materials	DIN W.-Nr.	AISI/ASTM
2	Motor stool	Cast iron	0.6020	ASTM 25B
4	Chamber	Stainless steel	1.4301	AISI 304
4a	Bearing CHK	Ceramic		
	Bearing MTR	Bronze		
26	Strap	Stainless steel	1.4301	AISI 304
45	Neck ring	PTFE		
47a	Bearing ring CHK	Tungsten carbide		
	Bearing ring MTH	Stainless sinter metal		
49	Impeller	Stainless steel	1.4401	AISI 316
84	Strainer	Stainless steel	1.4401	AISI 316
121	Suction chamber	Stainless steel	1.4301	AISI 304
122	Priming screw	Stainless steel	1.4301	AISI 304

## Materials - CRK, MTR

Pos.	Description	Materials	DIN W.-Nr.	AISI/ASTM
1a	Motor stool	Cast iron GG 20	0.6020	ASTM 25B
2	Pump head MTR	Cast iron GGG 50	0.7050	ASTM 80-55-06
	Pump head CRK	Stainless steel GG 20	1.4408	
4	Chamber	Stainless steel	1.4301	AISI 304
26a	Strap	Stainless steel	1.4301	AISI 304
44	Inlet part	Stainless steel	1.4301	AISI 304
45a	Neck ring	Stainless steel	1.4301	AISI 304
47	Bearing ring CRK	Ceramic		
	Bearing ring MTR	Bronze		
47a	Bearing ring CRK	Tungsten carbide		
49	Impeller	Stainless steel	1.4301	AISI 304
51	Pump shaft	Stainless steel	1.4057	AISI 431
84	Strainer	Stainless steel	1.4301	AISI 304
a	Drain hole			

Subject to alterations.

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