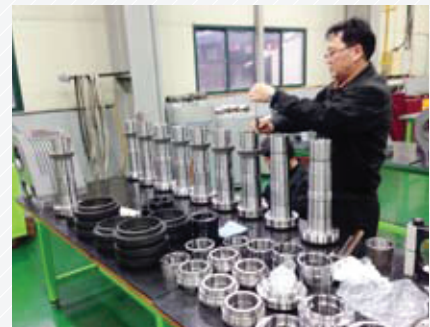


# AMBHEAD Spindle Line Up



**AMBHEAD**

# Grinding Spindles

## Belt driven grinding spindles

This is for general purpose grinding spindles.  
We can supply all kinds of belt-driven grinding spindles on optimized conditions.

### ■ BGM—Morse taper type

As general grinding spindle type, it can be set the Max. Speed by pulley ratio and changed immediately your spindle with new spindle.

- Tool mounting : Morse taper MT2, MT3, MT4
- Scope of supply : MT2/MT3/MT4(standard), MT5/MT6(option)
- Housing diameter :  $\varnothing 90\text{mm}$ (MT2/MT3),  $\varnothing 100\text{mm}$ (MT4)
- Max. Speed : Refer to the detailed specification



### ■ BGP—Protruded taper fixing type

Mounting tool on protruded taper

- Tool mounting : Protruded taper type (supply taper clamping device in case of customer requires)
- Housing diameter :  $\varnothing 60 \sim$   
(Supply at customer's request)
- Max. Speed : 20,000rpm(Refer to the detailed specification)



### ■ BGL—Long bar type

Suitable for grinding narrow and deep inner diameter

- Tool mounting : Protruded taper or straight shaft fixing
- Fixed housing diameter :  $\varnothing 60 \sim$
- External diameter of grinding part : Min.  $\varnothing 28$
- Max. grinding depth : 600mm
- Max. Speed : 20,000rpm

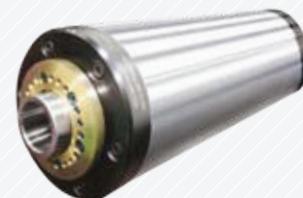


## HF Motor grinding spindles

No need peripheral device like external motor and belt etc for drive spindles. It can be grinding works changing speed to Max. speed by using inverter without changing pulley.

### ■ GEM-HF Motor morse taper type

- Tool mounting : Morse taper & Screw fixing
- Scope of supply : MT2/MT3/MT4 (standard), MT5/MT6 (option)
- Housing diameter :  $\varnothing 60 \sim$   
(Supply at customer's request)
- Max. Speed : Refer to the detailed specification.  
(Supply at customer's request)
- Refer to the details as attachment.



### ■ GEP-HF Motor Protruded Taper fixing type

Mounting tool on protruded taper

- Tool : Protruded taper  
(supply taper clamping device in case of customer requires)
- Housing diameter :  $\varnothing 60 \sim$   
(Supply at customer's request)
- Max. Speed : 20,000rpm (Refer to the details as attachment.)
- Motor power/Voltage/poles no. : Refer to the detailed specification.



### ■ GEH-HF Motor Inside tap hole fixing type

Mounting tool through fixing part of screw on shaft front

- Housing diameter :  $\varnothing 80\text{mm} \sim$
- Max. Speed : 50,000rpm (Refer to the detailed specification.)
- Motor power/Voltage/poles no. : Refer to the details as attachment.



### ■ GEPB-HF Motor Protruded Taper type External grinding spindle

- Tool mounting : Mounting tool of protruded taper
- Housing diameter :  $\varnothing 150\text{mm} \sim \varnothing 380\text{mm}$
- Max. Speed : Refer to the details as attachment.
- Motor power/Voltage/poles no. : Refer to the detailed specification.



## Tool specification and Option list

- Morse taper tool list & dimension : MT2/MT3/MT4
- Pulley : MT2/MT3/MT4
- Cooler for built-in motor



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## Belt driven : BGM–Morse taper type

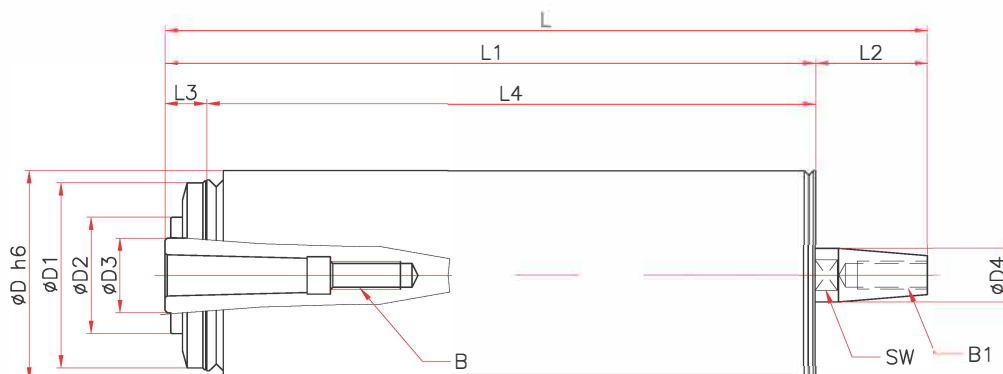
- For standard general purpose Grinding MCT
- Suitable for using machine with complete compatibility
- Very quiet and High precision, Long lifetime

## BGM Type

Ordering No.	A	L	L1	L2	L3	L4	D	D1	D2	D3	D4	B	C	SW	Speed
BGM90–MT2–18	MT2	328	280	48	18	262	90	79.5	50	32	23	LHM12	M12	19	18000rpm
BGM90–MT2–20	MT2	328	280	48	18	262	90	79.5	50	32	23	LHM12	M12	19	20000rpm
BGM90–MT2–25	MT2	328	280	48	18	262	90	79.5	50	32	23	LHM12	M12	19	25000rpm
BGM90–MT3–12	MT3	328	280	48	18	262	90	79.5	50	32	23	LHM12	M12	19	12000rpm
BGM90–MT3–12(L320)	MT3	328	280	60	18	262	90	79.5	50	32	23	LHM12	M12	19	12000rpm
BGM100–MT4–8	MT4	415	355	60	18	337	100	89.5	60	42	38	LHM16	M16	32	8000rpm

※ The items can be supplied according to the standard product, so when a change request needs.

## Dimension



# AMBHEAD



## Belt driven : BGP-Protruded taper type

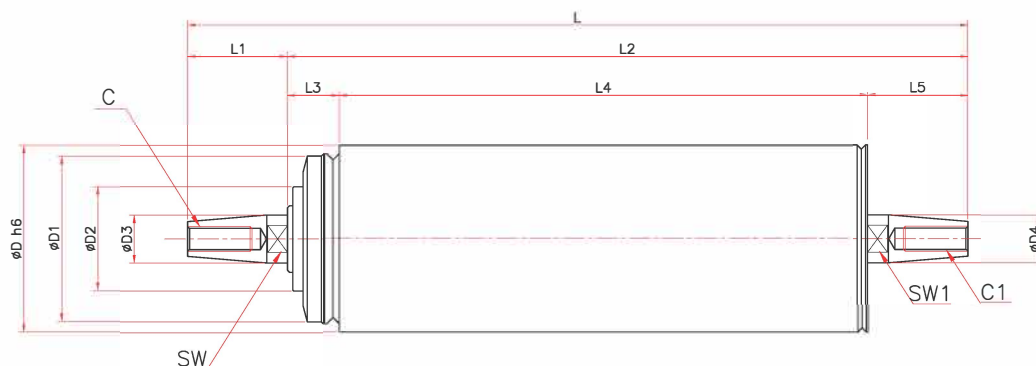
- Supply spindle together with taper clamping device according to fixing wheel.
- Very quiet and High precision, Long lifetime

## BGP Type

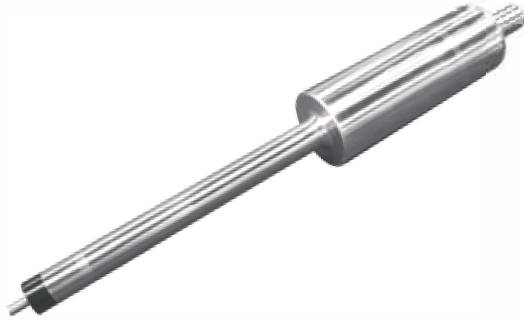
Ordering No.	D	D1	D2	D3	D4	L	L1	L2	L3	L4	L5	C	C1	SW/SW1	Speed
BGP40-22-45	40	35	12	12	12	203	29	174	10	140	24	LHM6	M6	10/10	45000rpm
BGP50-25-45	50	42	15	15	15	222	33	189	12	150	27	LHM6	M6	13/13	45000rpm
BGP60-32-30	60	55	25	25	25	268	43	225	20	170	35	LHM8	M8	22/22	30000rpm
BGP80-45-20	80	75	30	30	30	336	58	278	30	200	48	LHM12	M12	27/27	20000rpm
BGP90-60-18	90	79.5	35	35	35	422	75	347	22.5	255	70	LHM12	M12	19/19	18000rpm
BGP100-65-12	100	90	45	45	45	480	80	400	25	300	75	LHM12	M12	41/41	12000rpm
BGP120-75-8	120	110	50	50	50	520	80	440	35	330	75	LHM12	M12	41/41	8000rpm

※ If you have further requirements, we can discuss.

## Dimension



# AMBHEAD



## Belt driven : BGL-Long bar

Specialized in deep hole

- For narrow and deep bore grinding spindle
- Choose any kind of spindles according to size and depth of I.D,
- Minimize movement by one-piece housing & maintain high precision.

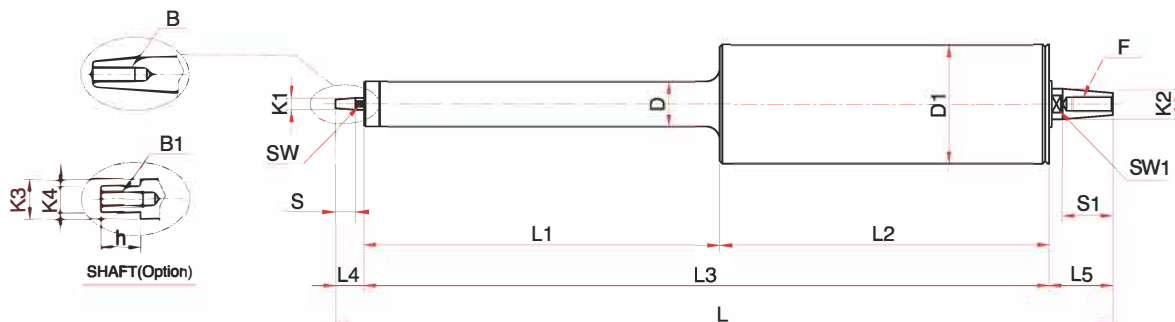
## BGL Type

Ordering No.	D	D1	L	L1	L2	L3	*L4	L5	*S	S1	K1	K2	B/F	SW/ SW1	Max.Speed	**Option(Shaft)			
																K3	K4	h	B1
BGL28-250	28	90	569	250	250	500	21	48	15	38	9	23	M6/M12	8/19	25000rpm	10	16	15	M6
BGL28-300	28	90	619	300	250	550	21	48	15	38	9	23	M6/M12	8/19	25000rpm	10	16	15	M6
BGL28-350	28	90	669	350	250	600	21	48	15	38	9	23	M6/M12	8/19	25000rpm	10	16	15	M6
BGL32-250	32	90	569	250	250	500	21	48	15	38	9	23	M6/M12	8/19	25000rpm	10	16	15	M6
BGL32-300	32	90	619	300	250	550	21	48	15	38	9	23	M6/M12	8/19	25000rpm	10	16	15	M6
BGL32-350	32	90	669	350	250	600	21	48	15	38	9	23	M6/M12	8/19	25000rpm	10	16	15	M6
BGL34-300	34	90	622	300	250	550	24	48	18	38	11	23	M6/M12	8/19	25000rpm	10	16	15	M6
BGL34-350	34	90	672	350	250	600	24	48	18	38	11	23	M6/M12	8/19	25000rpm	10	16	15	M6
BGL34-400	34	90	722	400	250	650	24	48	18	38	11	23	M6/M12	8/19	25000rpm	10	16	15	M6
BGL42-350	42	90	626	350	250	550	28	48	22	38	14	23	M8/M12	12/19	25000rpm	16	26	32	M8
BGL42-400	42	90	676	400	250	600	28	48	22	38	14	23	M8/M12	12/19	25000rpm	16	26	32	M8
BGL42-450	42	90	726	450	250	650	28	48	22	38	14	23	M8/M12	12/19	25000rpm	16	26	32	M8

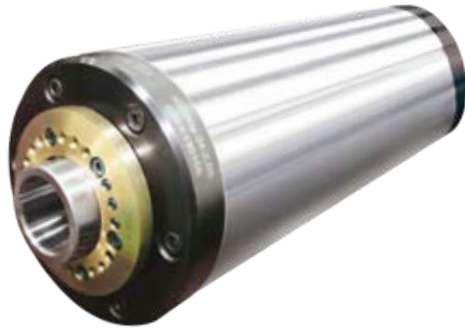
※ In case of choosing option, it will be replaced with K3, K4, h.

※ If you have further requirements, we can discuss.

## Dimension



# AMBHEAD



## HF motor : GEM–Morse taper type

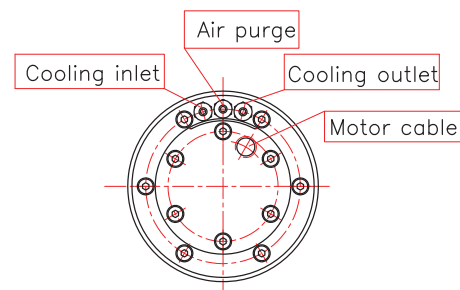
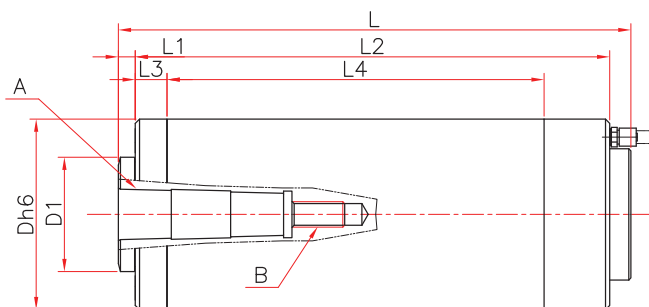
- For standard general purpose grinding
- Suitable for using machine with complete compatibility
- Very quiet and High precision, Long lifetime
- Various machinability according to changing speed

## GEM Type

Ordering No.	A	L	L1	L2	L3	L4	D	D1	B	Max.Speed	Power	Hz
GEM90–MT2–24	MT2	242	8	224	15	178	90	54	LHM12	24000rpm	2.59	800
GEM90–MT2–30	MT2	242	8	224	15	178	90	54	LHM12	30000rpm	2.59	1000
GEM90–MT3–24	MT3	262	8	244	15	198	90	54	LHM12	24000rpm	3.46	800
GEM90–MT3–24	MT3	262	8	244	15	198	90	54	LHM12	30000rpm	3.46	1000
GEM110–MT4–12	MT4	292	10	275	20	218	110	55	LHM16	12000rpm	4.88	400

※ Power supply : 220V / 380Vac, 4Poles, Water Cooling required

## Dimension



# AMBHEAD



## HF motor : GEP-Protruded taper type

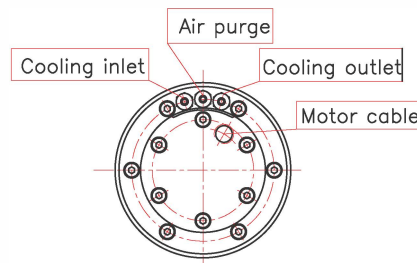
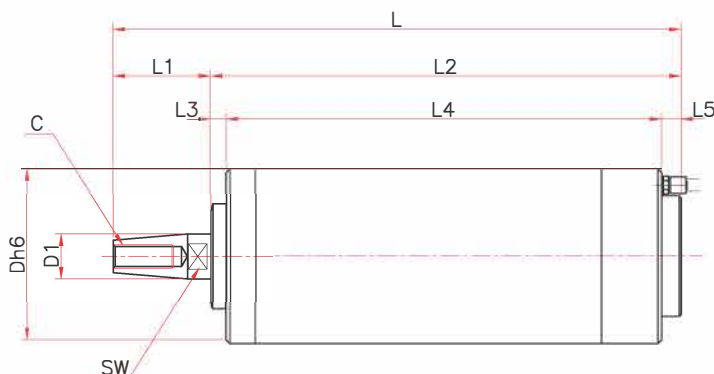
- Supply spindle together with taper clamping device according to fixing wheel.
- Very quiet, High precision, Long lifetime
- Simplify structure with built-in motor

## GEP Type

Ordering No.	L	L1	L2	L3	L4	L5	D	D1	C	SW	Max.Speed	Power	Hz
GEP60-24-1.5	219	29	190	6	176	8	Ø60	12	LHM6	10	24000rpm	1.5	800
GEP90-24-1.9	292	33	234	8	216	10	Ø90	15	LHM6	13	24000rpm	1.9	800
GEP90-24-2.2	292	43	234	8	216	10	Ø90	25	LHM8	22	24000rpm	2.2	800
GEP90-24-2.6	292	58	234	8	216	10	Ø90	30	LHM12	27	24000rpm	2.6	800
GEP110-18-5.4	330	70	260	10	238	12	Ø110	35	LHM12	1	18000rpm	5.4	600
GEP120-15-5.4	340	75	265	12	241	12	Ø120	45	LHM12	41	15000rpm	5.4	500
GEP150-9-10.2	380	80	300	15	270	15	Ø150	50	LHM12	46	9000rpm	10.26	300
GEP170-9-10.2	420	80	340	17	308	15	Ø170	60	LHM12	55	9000rpm	10.26	300

※ Power supply : 220V / 380Vac, 4Poles, Water Cooling required

## Dimension



# AMBHEAD



## HF motor : GEH—Fixing inside tap hole

- For grinding narrow and deep hole
- Choose any kind of spindles according to size and depth of I.D,
- Minimize movement by one-piece housing & maintain high precision

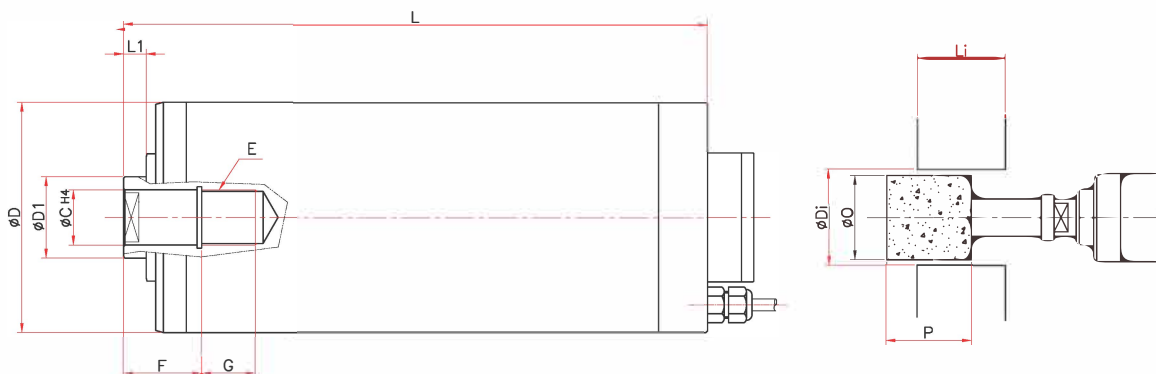
## GEH Type

Designation	Dimensions(mm)								HSK
	Housing Type spindle								
Ordering No.	D	D1	L	L1	C	E	F	G	Type
GEH080a-50-0.7	80	9	200	5	5	M5×0.8	7	9	
GEH080a-40-2	80	11	200	5	6	M6×1	9	11	
GEH080a-30-3	80	14	200	5	8	M8×1.25	12	14	
GEH0100a-40-2	100	14	209	6	8	M8×1.25	12	14	
GEH0100a-30-3	100	16	216	6	9	M9×1.25	13	14	
GEH0100a-24-5	100	18	250	8	10	M10×1.5	15	19	
GEH0120a-40-3	120	23	279	9	14	M14×1.5	21	19	
GEH0120a-30-5	120	28	309	9	16	M16×1.5	24	19	HSK-C25
GEH0120a-24-7	120	38	335	11	22	M22×2	34	25	HSK-C32
GEH0150a-40-9	150	38	313	11	22	M22×2	34	25	HSK-C32
GEH0150a-30-15	150	53	382	14	32	M32×2	46	25	HSK-C50
GEH0150a-24-21	150	63	386	16	36	M36×2	50	25	HSK-C63
GEH0150a-18-15	150	63	386	16	36	M36×2	50	25	HSK-C63
GEH0170a-21-21	170	48	357	13	28	M28×2	42	25	HSK-C40
GEH0170a-19-25	170	53	379	14	32	M32×2	46	25	HSK-C50
GEH0170a-15-28	170	63	383	16	36	M36×2	50	25	HSK-C63
GEH0170a-10-30	170	68	419	18	36	M36×2	50	25	HSK-C63

Bearing lubrication	Operating mode		S1 100%	Tool dimensions(mm)			
	Speed	Output	Torque	For bore holes		Abrasive wheels	
	rpm	kW	Nm	Di	Li	O	P
Oil-air	50,000	0.7	0.17	4~8	10~25	3.5~7	6~10
Oil-air	40,000	2	0.64	6~12	1.5~30	5~10	6~12
Grease	30,000	3	1.43	12~16	20~40	10~14	12~14
Oil-air	40,000	2	0.64	6~12	8~30	5~10	4~12
Oil-air	30,000	3	1.43	7~16	15~35	6~14	6~14
Grease	24,000	5	3.2	12~17	20~40	10~16	10~16
Oil-air	40,000	3	0.95	20~30	30~70	17~25	20~30
Oil-air	30,000	5	2.4	25~40	35~80	22~35	25~35
Grease	24,000	7	4.45	25~40	35~90	22~35	25~40
Oil-air	40,000	9	2.9	35~60	40~100	30~55	30~40
Oil-air	30,000	15	7.16	40~65	40~110	35~60	35~45
Oil-air	24,000	21	13.4	45~65	40~130	40~60	35~55
Oil-air	18,000	15	17.9	55~100	55~160	60~90	45~55
Oil-air	21,000	21	22.3	55~85	40~100	50~85	35~45
Oil-air	19,000	25	23.86	35~85	40~120	30~60	40~50
Oil-air	15,000	28	44.5	35~90	40~130	30~85	45~60
Grease	10,000	30	57.27	50~120	65~180	45~110	40~110

※ Water Cooling required.

## Dimension



# AMBHEAD



## HF motor : GEPB-Protruded taper type

Specialized in External grinding(Big Size)

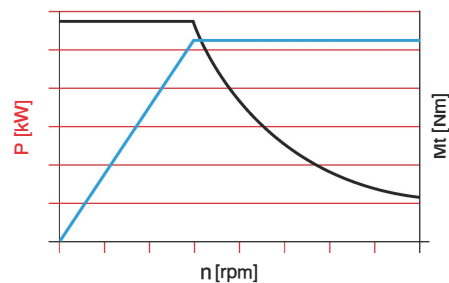
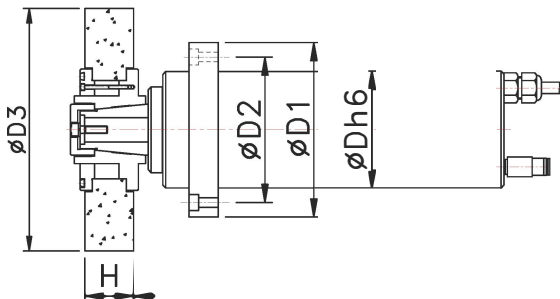
- Large size-Low speed & High torque
- Specialized in external grinding
- Supply one-piece clamping set for fixing wheel
- Very quiet and High precision, Long lifetime

## GEPB Type(Big Size)

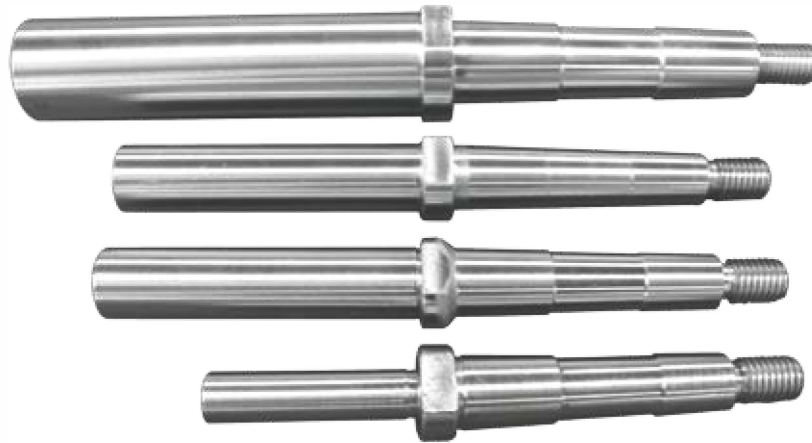
Desigation Ordering No.	Dimensions(mm)						Bearing lubrication	Max. Speed [rpm]	Operating mode		S6 60% 2min Torque [Nm]
	D	D1	D2	D3	L	H			Speed [rpm]	Output [kW]	
GEPB150g-6-7.5	150	185	168	300	400	65	Grease	6,000		7.5	12
GEPB170g-8-8.5	170	205	188	350	533	40	Grease	8,000	2,000	8.5	40
GEPB220g-5-30	220	262	240	450	698	40	Grease	5,000	3,000	30	95
GEPB240g-4-18	240	282	260	508	790	80	Grease	4,000	1,900	18	90
GEPB240a-8-15	240	282	260	400	464	40	Oil-Air	8,000	5,700	15	25
GEPB240a-8-30	240	282	260	400	535	40	Oil-Air	8,000	5,700	30	47
GEPB250a-9-36	250	300	275	500	725	80	Oil-Air	9,000	3,000	36	114
GEPB260g-6-18	260	302	280	400	850	240	Grease	6,000	1,500	18	114
GEPB280g-3-22	280	330	302	500	650	100	Grease	3,000	1,500	22	458
GEPB350g-2-48	350	410	380	700	1000	100	Grease	2,000	1,000	48	458
GEPB380g-1.2-60	380	450	416	800	1000	150	Grease	1,200	1,000	60	573

※ Water Cooling required.

## Dimension



# AMBHEAD



## Morse taper & Tool standard specification select list

Ordering No.	L	L1	L2	L3	L4	L5	L6	D	D1	D2	M	M1
MT2-18-20-25	176	80	8	88	19	52	28	Ø17.98	Ø18	Ø9	M8×P1.25(L)	M12×P1.75(L)
	146	50	8	88	19	44	20	Ø17.78	Ø12	Ø6	M5×P0.8(L)	M12×P1.75(L)
MT3-12	179	65	8	106	20	53	28	Ø23.825	Ø18	Ø6	M5×P0.8(L)	M12×P1.75(L)
	194	80	8	106	20	53	28	Ø23.825	Ø22	Ø8	M6×P1(L)	M12×P1.75(L)
	179	65	8	106	20	53	28	Ø23.825	Ø18	Ø10	M8×P1.2(L)	M12×P1.75(L)
	194	80	8	106	20	53	28	Ø23.825	Ø22	Ø10	M8×P1.2(L)	M12×P1.75(L)
	224	110	8	106	20	53	28	Ø23.825	Ø29	Ø10	M8×P1.25(L)	M12×P1.75(L)
MT4-8	288	140	12	134	25	53	28	Ø31.267	Ø35	Ø10	M8×P1.2(L)	M16×P1.5(L)
	256	110	12	134	25	53	28	Ø31.267	Ø35	Ø10	M8×P1.2(L)	M16×P1.5(L)

※ (L) – Left threading.

## Dimension

