

HPP25-工程塑料轴承 Plastic Plain Bearings

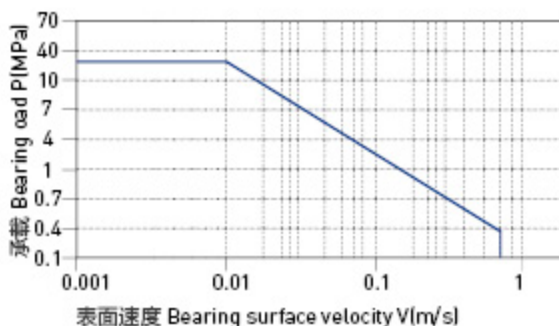
轴承PV值 PV Value

HPP25系列轴承最大运行PV值为 $0.3\text{N/mm}^2 \times \text{m/s}$;由此决定轴承所承受的载荷与速度成反比, 详细查阅图表HPP25-1。

The max PV value of the HPP25 plastic bearing is $0.3\text{N/mm}^2 \times \text{m/s}$ which determines the load capacity of bearing is inversely proportional to the speed. Please refer to the chart for more detailed information (Graph HPP25-1).

图表 HPP25-1: PV 图表

Graph HPP25-1: Permissible PV value for HPP25



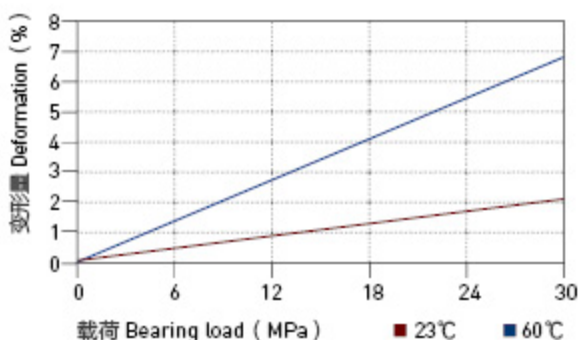
轴承的载荷、速度、温度 The Relation Of Load, Speed And Temperature

HPP25塑料轴承可承受最大静载荷为30Mpa, 在此载荷下轴承的最大压缩变形量参考图表HPP25-2; 轴承实际工作载荷小于30Mpa, 载荷还受到运行速度以及温度的影响, 速度越快 (Vmax: 0.8m/s)会导致摩擦温度上升, 而温度上升 (Tmax: 80℃)会导致轴承的承载能力逐渐减弱, 载荷随轴承工作温度变化情况参考图表HPP25-3。

HPP25 allows the max static load of 30Mpa, The max compressive deformation rate under the max load is listed in Graph HPP25-2; The actual load capacity of bearing is slightly less than 30Mpa, The bearing load is variable against the speed and temperature, Fast speed (Vmax: 0.8m/s) results into higher temperature (Tmax: 80℃) which decreases the load capacity of the bearing. Please refer to the Graph HPP25-3 for such variation.

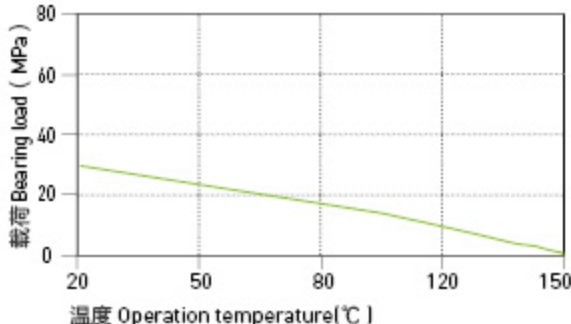
图表 HPP25-2: 载荷 - 温度 - 变形量图表

Graph HPP25-2: Load-Temperature deformation



图表 HPP25-3: 载荷 - 温度图表

Graph HPP25-3: Load-Temperature diagrams



HPP25-工程塑料轴承 Plastic Plain Bearings

轴承的摩擦系数、磨损、轴材料 Friction Factor, Wear And Shaft Material

■ 轴承的摩擦系数 Friction factor

HPP25轴承摩擦系数受运行速度以及轴承载荷变化影响相对较小（见图表HPP25-4与图表HPP25-5），这也是HPP25作为塑料轴承通用型号选择的因素；此轴承可以保持一直比较低的摩擦系数从而确保了整个摩擦磨损性能的优越性。根据图表HPP25-6显示HPP25轴承的摩擦系数还会受到对磨轴表面粗糙度的影响而发生变化，我们推荐此轴承使用轴表面粗糙度值为Ra0.3~0.5 μ m。

HPP25 friction factor is not sensitive to the operation speed and bearing loading [see Graph HPP25-4 and Graph HPP25-5]. The above features are the most common considerations for the bearing material selection. The friction of HPP25 could be maintained at a relatively lower level so that the good wearing features are guaranteed. From the Graph HPP25-6, we could see that the friction factor is variable against the changing of shaft roughness. The recommended shaft roughness is Ra0.3~0.5.

HPP25	干运行 Dry	油脂 Grease	油 Oil	水 Water
摩擦系数 μ Friction coef.	0.05~0.20	0.09	0.04	0.04

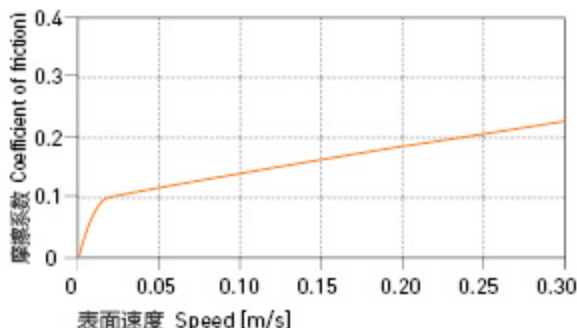
■ 磨损与轴材料 Wearing and shaft material

轴材料对轴承的磨损有很大影响，但HPP25轴承适合几乎所有的轴材料；通过图表HPP25-7与图表HPP25-8可以看出当使用硬铬钢轴或硬化钢轴以及硬化铝轴时HPP25轴承的磨损特性都非常出色。

The shaft material is an important media for the bearing wearing but HPP25 is suitable for almost all kinds of shaft materials. Graph HPP25-7 and Graph HPP25-8 show that the wearing feature of HPP25 is excellent when the shaft material are hardened chrome steel or hardened steel or hardened Aluminum.

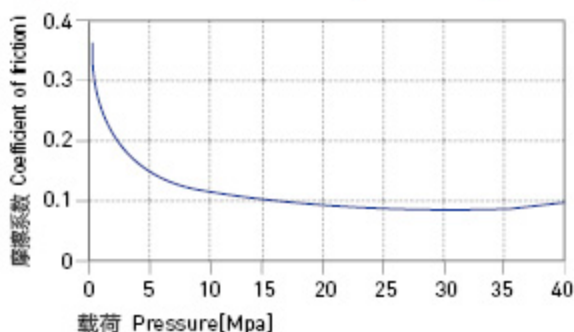
图表 HPP25-4: 摩擦系数与速度变化关系图表 P=2MPa

Graph HPP25-4: Coefficient of friction & the speed of bearing, P=2MPa



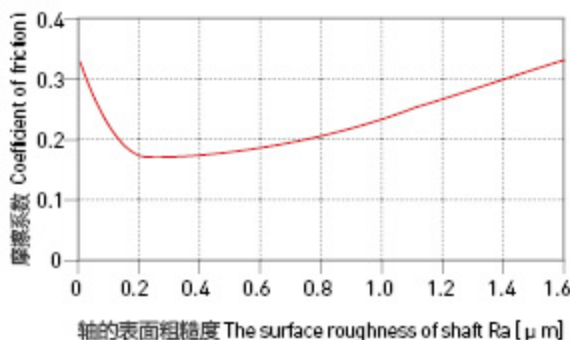
图表 HPP25-5: 摩擦系数与载荷变化关系图表 v=0.2m/s

Graph HPP25-5: Coefficient of friction & the pressure of bearing, v=0.2m/s



图表 HPP25-6: 摩擦系数与轴表面粗糙度关系图表

Graph HPP25-6: Coefficient of friction & the surface roughness of shaft



HPP25-工程塑料轴承 Plastic Plain Bearings

轴承的摩擦系数、磨损、轴材料 Friction Factor, Wear And Shaft Material

化学抗性 Chemical Resistance

HPP25 塑料轴承 能抵抗弱碱、弱酸以及各类润滑油的腐蚀。

HPP25 is good at chemical resistance against mild base, weak acidic medium and various kinds of lubricants.

吸水性 Water Absorbability

在标准大气压中, HPP25 塑料轴承的吸水率极为0.2%, 浸泡水中最大平衡率为1.2%; 由于其具有低吸水性率特性, 故此轴承可以用于一般潮湿环境中。

The water absorb rate HPP25 is 0.2% under the atmospheric pressure while it is 1.2% when the material is immersed into water. With its low water absorbability, the material is suitable for humid environment applications.

抗UV性能 UV Resistance

HPP25长久暴露在紫外线下颜色基本不会改变。材料的硬度, 抗压强度和耐磨性都不会改变。

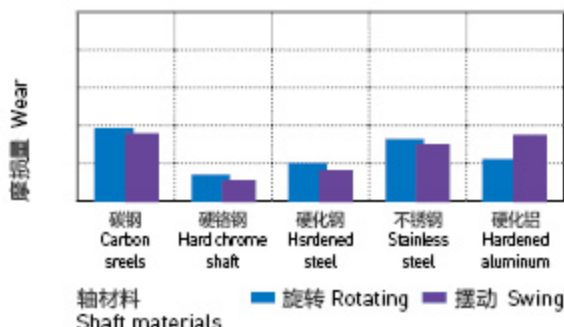
HPP25 can maintain its color unchanged when it is exposed to the UV ray. The hardness, Compressive strength and wear resistance of the material is also stable under such condition.

安装公差 Installation Tolerances

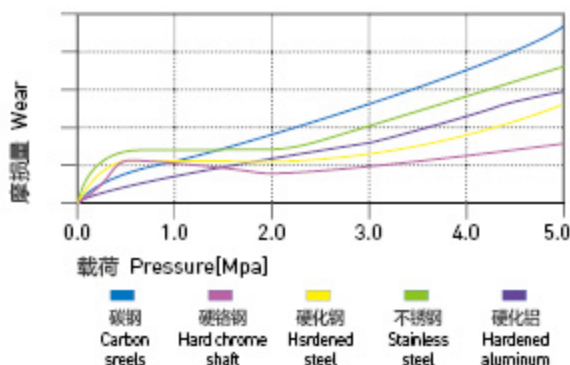
HPP25 塑料轴承压装后公差 Tolerances after pressfit

直径 Di. [mm]	HPP25 E10 [mm]	座孔 Housing H7 [mm]	轴 Shaft h9 [mm]
> 0-3	+0.014~+0.054	0~+0.010	0~-0.025
> 3-6	+0.020~+0.068	0~+0.012	0~-0.030
> 6-10	+0.025~+0.083	0~+0.015	0~-0.036
> 10-18	+0.032~+0.102	0~+0.018	0~-0.043
> 18-30	+0.040~+0.124	0~+0.021	0~-0.052
> 30-50	+0.050~+0.150	0~+0.025	0~-0.062
> 50-80	+0.060~+0.180	0~+0.030	0~-0.074
> 80-120	+0.072~+0.212	0~+0.035	0~-0.087
> 120-180	+0.085~+0.245	0~+0.040	0~-0.100

图表 HPP25-7: 在不同轴材料上旋转时的磨损量 $P=2\text{MPa}$, $v=0.2\text{m/s}$
Graph HPP25-7: The bearing wear under rotating with different shaft materials, $p=2\text{MPa}$, $v=0.2\text{m/s}$

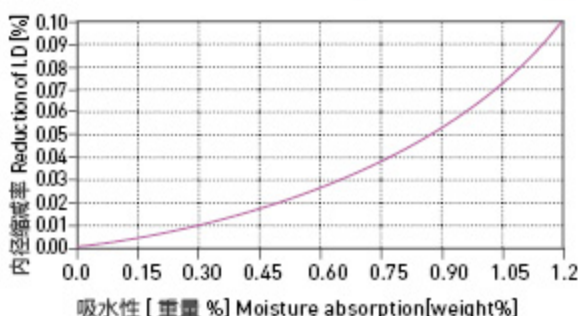


图表 HPP25-8: 旋转磨损随轴材料与压力变化关系 $v=0.2\text{m/s}$
Graph HPP25-8: The bearing wear & pressure under rotating with different shaft materials, $v=0.2\text{m/s}$



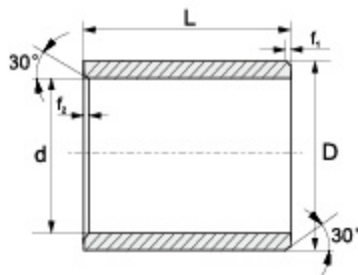
图表 HPP25-9: 吸水性的影响

Graph HPP25-9: Effect of moisture absorption on HPP25 bearings



HPP25 标准规格

直套Metric Cylindrical Bushings



推荐安装公差 Recommend fitting tolerance:

座孔 Housing: H7

轴 Shaft: h9

订购编码 Order P/N:

HPP25-0304-03

材料 Material

d	f ₁	f ₂
1-6	0.3	0.5
6-12	0.5	
12-30	0.8	
>30	1.2	

订购编码 Order PN	d [mm]	d- 公差 After fitting [mm]	D [mm]	L(h13) [mm]
HPP25-0304-03	3	+0.014/+0.054	4.5	3
HPP25-0304-05	3	+0.014/+0.054	4.5	5
HPP25-0304-06	3	+0.014/+0.054	4.5	6
HPP25-0305-05	3	+0.014/+0.054	5	5
HPP25-0405-04	4	+0.02/+0.068	5.5	4
HPP25-0405-06	4	+0.02/+0.068	5.5	6
HPP25-0405-08	4	+0.02/+0.068	5.5	8
HPP25-0406-06	4	+0.02/+0.068	6	6
HPP25-0507-05	5	+0.02/+0.068	7	5
HPP25-0507-08	5	+0.02/+0.068	7	8
HPP25-0507-10	5	+0.02/+0.068	7	10
HPP25-0507-12	5	+0.02/+0.068	7	12
HPP25-0507-18	5	+0.02/+0.068	7	18
HPP25-0608-04	6	+0.02/+0.068	8	4
HPP25-0608-05	6	+0.02/+0.068	8	5
HPP25-0608-06	6	+0.02/+0.068	8	6
HPP25-0608-08	6	+0.02/+0.068	8	8
HPP25-0608-10	6	+0.02/+0.068	8	10
HPP25-0608-11	6	+0.02/+0.068	8	11
HPP25-0810-05	8	+0.025/+0.083	10	5
HPP25-0810-06	8	+0.025/+0.083	10	6
HPP25-0810-08	8	+0.025/+0.083	10	8
HPP25-0810-10	8	+0.025/+0.083	10	10
HPP25-0810-11	8	+0.025/+0.083	10	11
HPP25-0810-12	8	+0.025/+0.083	10	12
HPP25-0810-15	8	+0.025/+0.083	10	15
HPP25-0811-10	8	+0.025/+0.083	11	10
HPP25-0812-10	8	+0.025/+0.083	12	10
HPP25-0911-06	9	+0.025/+0.083	11	6
HPP25-1012-04	10	+0.025/+0.083	12	4
HPP25-1012-05	10	+0.025/+0.083	12	5
HPP25-1012-06	10	+0.025/+0.083	12	6
HPP25-1012-08	10	+0.025/+0.083	12	8
HPP25-1012-10	10	+0.025/+0.083	12	10
HPP25-1012-12	10	+0.025/+0.083	12	12

订购编码 Order PN	d [mm]	d- 公差 After fitting [mm]	D [mm]	L(h13) [mm]
HPP25-1012-15	10	+0.025/+0.083	12	15
HPP25-1014-10	10	+0.025/+0.083	14	10
HPP25-1014-16	10	+0.025/+0.083	14	16
HPP25-1012-18	10	+0.025/+0.083	12	18
HPP25-1012-20	10	+0.025/+0.083	12	20
HPP25-1214-06	12	+0.032/+0.102	14	6
HPP25-1214-08	12	+0.032/+0.102	14	8
HPP25-1214-10	12	+0.032/+0.102	14	10
HPP25-1214-12	12	+0.032/+0.102	14	12
HPP25-1214-15	12	+0.032/+0.102	14	15
HPP25-1214-20	12	+0.032/+0.102	14	20
HPP25-1214-25	12	+0.032/+0.102	14	25
HPP25-1214-30	12	+0.032/+0.102	14	30
HPP25-1215-20	12	+0.032/+0.102	15	20
HPP25-1216-12	12	+0.032/+0.102	16	12
HPP25-1315-07	13	+0.032/+0.102	15	7
HPP25-1315-10	13	+0.032/+0.102	15	10
HPP25-1416-08	14	+0.032/+0.102	16	8
HPP25-1416-10	14	+0.032/+0.102	16	10
HPP25-1416-12	14	+0.032/+0.102	16	12
HPP25-1416-15	14	+0.032/+0.102	16	15
HPP25-1416-20	14	+0.032/+0.102	16	20
HPP25-1416-25	14	+0.032/+0.102	16	25
HPP25-1517-10	15	+0.032/+0.102	17	10
HPP25-1517-12	15	+0.032/+0.102	17	12
HPP25-1517-15	15	+0.032/+0.102	17	15
HPP25-1517-17	15	+0.032/+0.102	17	17
HPP25-1517-20	15	+0.032/+0.102	17	20
HPP25-1517-25	15	+0.032/+0.102	17	25
HPP25-1618-10	16	+0.032/+0.102	18	10
HPP25-1618-12	16	+0.032/+0.102	18	12
HPP25-1618-15	16	+0.032/+0.102	18	15
HPP25-1618-20	16	+0.032/+0.102	18	20
HPP25-1618-25	16	+0.032/+0.102	18	25
HPP25-1619-5.5S	16	+0.015/+0.055	19	5.5

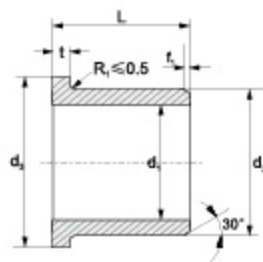
订购编码 Order PN	d [mm]	d-公差 After fitting [mm]	D [mm]	L(h13) [mm]
HPP25-1620-16	16	+0.032/+0.102	20	16
HPP25-1820-15	18	+0.032/+0.102	20	15
HPP25-1820-20	18	+0.032/+0.102	20	20
HPP25-1820-25	18	+0.032/+0.102	20	25
HPP25-2022-12	20	+0.04/+0.124	22	12
HPP25-2022-15	20	+0.04/+0.124	22	15
HPP25-2022-28	20	+0.04/+0.124	22	28
HPP25-2023-10	20	+0.04/+0.124	23	10
HPP25-2023-15	20	+0.04/+0.124	23	15
HPP25-2023-20	20	+0.04/+0.124	23	20
HPP25-2023-23	20	+0.04/+0.124	23	23
HPP25-2023-25	20	+0.04/+0.124	23	25
HPP25-2023-30	20	+0.04/+0.124	23	30
HPP25-2025-15	20	+0.04/+0.124	25	15
HPP25-2225-15	22	+0.04/+0.124	25	15
HPP25-2225-20	22	+0.04/+0.124	25	20
HPP25-2225-25	22	+0.04/+0.124	25	25
HPP25-2225-30	22	+0.04/+0.124	25	30
HPP25-2528-10	25	+0.04/+0.124	28	10
HPP25-2528-12	25	+0.04/+0.124	28	12
HPP25-2528-15	25	+0.04/+0.124	28	15
HPP25-2528-20	25	+0.04/+0.124	28	20
HPP25-2528-25	25	+0.04/+0.124	28	25
HPP25-2528-30	25	+0.04/+0.124	28	30
HPP25-2529-25	25	+0.04/+0.124	29	25
HPP25-2530-25	25	+0.02/+0.104	30	25
HPP25-2832-20	28	+0.04/+0.124	32	20
HPP25-2832-25	28	+0.04/+0.124	32	25
HPP25-2832-30	28	+0.04/+0.124	32	30
HPP25-3034-20	30	+0.04/+0.124	34	20
HPP25-3034-25	30	+0.04/+0.124	34	25
HPP25-3034-30	30	+0.04/+0.124	34	30
HPP25-3034-40	30	+0.04/+0.124	34	40

订购编码 Order PN	d [mm]	d-公差 After fitting [mm]	D [mm]	L(h13) [mm]
HPP25-3236-20	32	+0.05/+0.15	36	20
HPP25-3236-23	32	+0.05/+0.15	36	23
HPP25-3236-25	32	+0.05/+0.15	36	25
HPP25-3236-30	32	+0.05/+0.15	36	30
HPP25-3236-40	32	+0.05/+0.15	36	40
HPP25-3539-15	35	+0.05/+0.15	39	15
HPP25-3539-20	35	+0.05/+0.15	39	20
HPP25-3539-25	35	+0.05/+0.15	39	25
HPP25-3539-30	35	+0.05/+0.15	39	30
HPP25-3539-40	35	+0.05/+0.15	39	40
HPP25-3539-50	35	+0.05/+0.15	39	50
HPP25-4044-20	40	+0.05/+0.15	44	20
HPP25-4044-30	40	+0.05/+0.15	44	30
HPP25-4044-40	40	+0.05/+0.15	44	40
HPP25-4044-50	40	+0.05/+0.15	44	50
HPP25-4550-30	45	+0.05/+0.15	50	30
HPP25-4550-40	45	+0.05/+0.15	50	40
HPP25-4550-50	45	+0.05/+0.15	50	50
HPP25-5055-10	50	+0.05/+0.15	55	10
HPP25-5055-20	50	+0.05/+0.15	55	20
HPP25-5055-30	50	+0.05/+0.15	55	30
HPP25-5055-40	50	+0.05/+0.15	55	40
HPP25-5055-50	50	+0.05/+0.15	55	50
HPP25-5456-30	54	+0.060/+0.180	56	30
HPP25-6065-50	60	+0.060/+0.180	65	50
HPP25-7075-50	70	+0.060/+0.180	75	50
HPP25-8085-40	80	+0.060/+0.180	85	40
HPP25-8590-40	85	+0.072/+0.212	90	40
HPP25-125130-60S	125	+0.043/+0.143	130	60
HPP25-150155-60S	150	+0.043/+0.143	155	60

*d 公差为压入标准 H7 座孔 (ISO3547-1) 后公差

*Tolerance d: after being pressed into housing H7(ISO3547-1)

翻边轴套 Metric Flange Bushings



推荐安装公差 Recommend fitting tolerance:

座孔 Housing: H7

轴 Shaft: h9

订购编码 Order P/N:

HPP25 F-0304-03

材料 Material

翻边轴套 Flange bushes

d	f
1-6	0.3
6-12	0.5
12-30	0.8
>30	1.2

订购编码 Order PN	d ₁ [mm]	d ₁ -公差 After fitting [mm]	d ₂ [mm]	d ₂ [d13] [mm]	L[h13] [mm]	t _{0.14} [mm]
HPP25F-0304-03	3	+0.014/+0.054	4.5	7.5	3	0.75
HPP25F-0304-05	3	+0.014/+0.054	4.5	7.5	5	0.75
HPP25F-040503	4	+0.02/+0.068	5.5	9.5	3	0.75
HPP25F-0405-06	4	+0.02/+0.068	5.5	9.5	6	0.75
HPP25F-050703	5	+0.02/+0.068	7	11	3	1
HPP25F-0507-04	5	+0.02/+0.068	7	11	4	1
HPP25F-0507-05	5	+0.02/+0.068	7	11	5	1
HPP25F-0608-04	6	+0.02/+0.068	8	12	4	1
HPP25F-0608-05	6	+0.02/+0.068	8	12	5	1
HPP25F-0608-06	6	+0.02/+0.068	8	12	6	1
HPP25F-0608-08	6	+0.02/+0.068	8	12	8	1
HPP25F-0608-10	6	+0.02/+0.068	8	12	10	1
HPP25F-0810-05	8	+0.025/+0.083	10	15	5	1
HPP25F-0810-06	8	+0.025/+0.083	10	15	6	1
HPP25F-0810-07	8	+0.025/+0.083	10	15	7	1
HPP25F-0810-09	8	+0.025/+0.083	10	15	9	1
HPP25F-0810-10	8	+0.025/+0.083	10	15	10	1
HPP25F-081014-12	8	+0.025/+0.083	10	14	12	1
HPP25F-081014-12F2	8	+0.025/+0.083	10	14	12	2
HPP25F-0810-12	8	+0.025/+0.083	10	15	12	1
HPP25F-081018-13	8	+0.025/+0.083	10	18	13	1
HPP25F-081017-15	8	+0.025/+0.083	10	17	15	1
HPP25F-081216-10	8	+0.013/+0.071	12	16	10	2
HPP25F-0912-10	9	+0.025/+0.083	12	18	10	2
HPP25F-1012-05	10	+0.025/+0.083	12	18	5	1
HPP25F-1012-06	10	+0.025/+0.083	12	18	6	1
HPP25F-1012-07	10	+0.025/+0.083	12	18	7	1
HPP25F-1012-08	10	+0.025/+0.083	12	18	8	1
HPP25F-1012-09	10	+0.025/+0.083	12	18	9	1
HPP25F-1012-10	10	+0.025/+0.083	12	18	10	1
HPP25F-1012-12	10	+0.025/+0.083	12	18	12	1
HPP25F-1012-15	10	+0.025/+0.083	12	18	15	1
HPP25F-1012-17	10	+0.025/+0.083	12	18	17	1
HPP25F-101216-12	10	+0.013/+0.071	12	16	12	2
HPP25F-101418-10	10	+0.013/+0.071	14	18	10	2
HPP25F-1214-04	12	+0.032/+0.102	14	20	4	1
HPP25F-1214-05	12	+0.032/+0.102	14	20	5	1
HPP25F-1214-06	12	+0.032/+0.102	14	20	6	1
HPP25F-1214-07	12	+0.032/+0.102	14	20	7	1
HPP25F-1214-09	12	+0.032/+0.102	14	20	9	1
HPP25F-1214-10	12	+0.032/+0.102	14	20	10	1
HPP25F-1214-12	12	+0.032/+0.102	14	20	12	1
HPP25F-1214-13	12	+0.032/+0.102	14	20	13	1
HPP25F-1214-15	12	+0.032/+0.102	14	20	15	1
HPP25F-1214-17	12	+0.032/+0.102	14	20	17	1
HPP25F-1214-18	12	+0.032/+0.102	14	20	18	1
HPP25F-1214-20	12	+0.032/+0.102	14	20	20	1
HPP25F121417-04	12	+0.032/+0.102	14	17	4	1
HPP25F-121417-05	12	+0.032/+0.102	14	17	5	1
HPP25F-121418-12F2	12	+0.016/+0.086	14	18	12	2
HPP25F-121418-25	12	+0.032/+0.102	14	18	25	1
HPP25F-121418-40F2	12	+0.016/+0.086	14	18	40	2
HPP25F-121620-10	12	+0.016/+0.086	16	20	10	2
HPP25F-121620-12	12	+0.016/+0.086	16	20	12	2

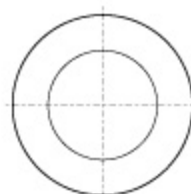
订购编码 Order PN	d ₁ [mm]	d ₁ -公差 After fitting [mm]	d ₂ [mm]	d ₂ [d13] [mm]	L[h13] [mm]	t _{0.14} [mm]
HPP25F-131519-12	13	+0.032/+0.102	15	19	12	1
HPP25F1416-052	14	+0.032/+0.102	16	22	5.2	1
HPP25F-1416-08	14	+0.032/+0.102	16	22	8	1
HPP25F-1416-10	14	+0.032/+0.102	16	22	10	1
HPP25F-1416-12	14	+0.032/+0.102	16	22	12	1
HPP25F-1416-17	14	+0.032/+0.102	16	22	17	1
HPP25F-141620-06	14	+0.016/+0.086	16	20	6	2
HPP25F-141620-15	14	+0.016/+0.086	16	20	15	2
HPP25F-141822-20	14	+0.032/+0.102	18	22	20	2
HPP25F-151720-05	15	+0.032/+0.102	17	20	5	1
HPP25F-1517-09	15	+0.032/+0.102	17	23	9	1
HPP25F-1517-12	15	+0.032/+0.102	17	23	12	1
HPP25F-151720-12	15	+0.032/+0.102	17	20	12	1
HPP25F-1517-15	15	+0.032/+0.102	17	23	15	1
HPP25F-1517-17	15	+0.032/+0.102	17	23	17	1
HPP25F-1517-20	15	+0.032/+0.102	17	23	20	1
HPP25F-1518-12	15	+0.032/+0.102	18	23	12	1
HPP25F-1517-25	15	+0.032/+0.102	17	23	25	1
HPP25F-1618-12	16	+0.032/+0.102	18	24	12	1
HPP25F-1618-17	16	+0.032/+0.102	18	24	17	1
HPP25F-161822-22	16	+0.016/+0.086	18	22	22	2
HPP25F-162024-16	16	+0.016/+0.086	20	24	16	2
HPP25F-162024-22	16	+0.016/+0.086	20	24	22	2
HPP25F-1820-12	18	+0.032/+0.102	20	26	12	1
HPP25F-1820-17	18	+0.032/+0.102	20	26	17	1
HPP25F-1820-20	18	+0.032/+0.102	20	26	20	1
HPP25F-182024-22	18	+0.016/+0.086	20	24	22	2
HPP25F-2022-15	20	+0.04/+0.124	22	25	15	1.5
HPP25F-2023-11.5	20	+0.04/+0.124	23	30	11.5	1.5
HPP25F-2023-16.5	20	+0.04/+0.124	23	30	16.5	1.5
HPP25F-2023-21.5	20	+0.04/+0.124	23	30	21.5	1.5
HPP25F-2023-25	20	+0.04/+0.124	23	30	25	1.5
HPP25F-202330-15	20	+0.02/+0.104	23	30	15	2
HPP25F-202330-22	20	+0.02/+0.104	23	30	22	2
HPP25F-202430-20	20	+0.02/+0.104	24	30	20	2
HPP25F-202530-15	20	+0.02/+0.104	25	30	15	2
HPP25F-202732-20	20	+0.02/+0.104	27	32	20	2
HPP25F-2225-11.5	22	+0.04/+0.124	25	33	11.5	1.5
HPP25F-2528-11.5	25	+0.04/+0.124	28	35	11.5	1.5
HPP25F-2528-16.5	25	+0.04/+0.124	28	35	16.5	1.5
HPP25F-2528-21.5	25	+0.04/+0.124	28	35	21.5	1.5
HPP25F-252835-22	25	+0.02/+0.104	28	35	22	2
HPP25F-252835-32	25	+0.02/+0.104	28	35	32	2
HPP25F-253035-20	25	+0.02/+0.104	30	35	20	2.5
HPP25F-253035-25	25	+0.02/+0.104	30	35	25	2.5
HPP25F-303335-04	30	+0.02/+0.104	33	35	4	1
HPP25F-3034-09	30	+0.04/+0.124	34	42	9	2
HPP25F-3034-16	30	+0.04/+0.124	34	42	16	2
HPP25F-3034-26	30	+0.04/+0.124	34	42	26	2
HPP25F-3034-32	30	+0.04/+0.124	34	42	32	2
HPP25F-3034-37	30	+0.04/+0.124	34	42	37	2
HPP25F-303445-18	30	+0.02/+0.104	34	45	18	2
HPP25F-303445-22	30	+0.02/+0.104	34	45	22	2
HPP25F-303445-32	30	+0.04/+0.124	34	45	32	2

订购编码 Order PN	d ₁ [mm]	d ₁ -公差 After fitting [mm]	d ₂ [mm]	d ₂ [d13] [mm]	L[h13] [mm]	t _{0.15} [mm]
HPP25F-3236-16	32	+0.05/+0.15	36	40	16	2
HPP25F-3236-26	32	+0.05/+0.15	36	40	26	2
HPP25F-3539-16	35	+0.05/+0.15	39	47	16	2
HPP25F-3539-26	35	+0.05/+0.15	39	47	26	2
HPP25F-353950-22	35	+0.025/+0.125	39	50	22	2
HPP25F-4044-30	40	+0.05/+0.15	44	52	30	2
HPP25F-4044-40	40	+0.05/+0.15	44	52	40	2
HPP25F-404455-17	40	+0.025/+0.125	44	55	17	2
HPP25F-4550-25	45	+0.05/+0.15	50	58	25	2
HPP25F-4550-45	45	+0.05/+0.15	50	58	45	2
HPP25F-4550-50	45	+0.05/+0.15	50	58	50	2
HPP25F-455060-45	45	+0.025/+0.125	50	60	45	2.5
HPP25F-5055-20	50	+0.05/+0.15	55	63	20	2
HPP25F-5055-30	50	+0.05/+0.15	55	63	30	2

订购编码 Order PN	d ₁ [mm]	d ₁ -公差 After fitting [mm]	d ₂ [mm]	d ₂ [d13] [mm]	L[h13] [mm]	t _{0.15} [mm]
HPP25F-5055-40	50	+0.05/+0.15	55	63	40	2
HPP25F-5055-50	50	+0.05/+0.15	55	63	50	2
HPP25F-505563-50	50	+0.025/+0.125	55	63	50	2
HPP25F-505565-20.5	50	+0.025/+0.125	55	65	20.5	2.5
HPP25F-6065-60	60	+0.06/+0.18	65	73	60	2
HPP25F-657080-60	65	+0.03/+0.15	70	80	60	2.5
HPP25F-7075-50	70	+0.060/+0.180	75	83	50	2
HPP25F-758090-25	75	+0.030/+0.150	80	90	25	2.5
HPP25F-758090-40	75	+0.030/+0.150	80	90	40	2.5
HPP25F-9095110-50	90	+0.036/+0.176	95	110	50	2.5
HPP25F-120125140-50	120	+0.072/+0.212	125	140	50	2.5

*d₁公差为压入标准 H7 座孔 (ISO3547-1) 后公差*Tolerance d₁: after being pressed into housing H7(ISO3547-1)

垫片 Metric Thrust Washers



订购编码 Order PN:

HPP25 W-0509-006

HPP25 W-0509-006
 d D T
 垫片 Washer
 材料 Material

订购编码 Order PN	d ^{+0.25} [mm]	D _{-0.25} [mm]	T _{-0.05} [mm]
HPP25W-0509-006	5	9	0.6
HPP25W-0615-015	6	15	1.5
HPP25W-0620-015	6	20	1.5
HPP25W-0815-005	8	15	0.5
HPP25W-0815-015	8	15	1.5
HPP25W-0818-010	8	18	1.0
HPP25W-0818-015	8	18	1.5
HPP25W-1018-010	10	18	1.0
HPP25W-1018-015	10	18	1.5
HPP25W-1018-020	10	18	2.0
HPP25W-1024-015	10	24	1.5
HPP25W-1224-015	12	24	1.5
HPP25W-1226-015	12	26	1.5
HPP25W-1426-015	14	26	1.5
HPP25W-1430-015	14	30	1.5
HPP25W-1524-015	15	24	1.5
HPP25W-1630-015	16	30	1.5
HPP25W-1632-015	16	32	1.5
HPP25W-1832-015	18	32	1.5
HPP25W-1836-015	18	36	1.5

订购编码 Order PN	d ^{+0.25} [mm]	D _{-0.25} [mm]	T _{-0.05} [mm]
HPP25W-2030-015	20	30	1.5
HPP25W-2036-015	20	36	1.5
HPP25W-2038-015	20	38	1.5
HPP25W-2238-015	22	38	1.5
HPP25W-2242-015	22	42	1.5
HPP25W-2442-015	24	42	1.5
HPP25W-2444-015	24	44	1.5
HPP25W-2548-015	25	48	1.5
HPP25W-2644-015	26	44	1.5
HPP25W-2848-015	28	48	1.5
HPP25W-3054-015	30	54	1.5
HPP25W-3254-015	32	54	1.5
HPP25W-3662-015	36	62	1.5
HPP25W-3862-015	38	62	1.5
HPP25W-4266-015	42	66	1.5
HPP25W-4674-020	46	74	2.0
HPP25W-4874-020	48	74	2.0
HPP25W-5178-020	51	78	2.0
HPP25W-5278-020	52	78	2.0
HPP25W-6290-020	62	90	2.0