



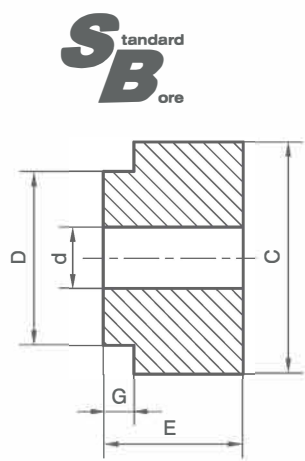
Steel Hubs For Split Taper Bushings

杭州四海传动件有限公司 Hangzhou Ocean Industry CO. Ltd.

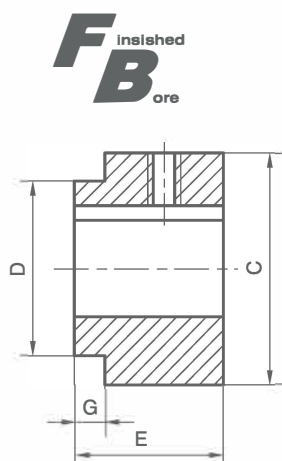
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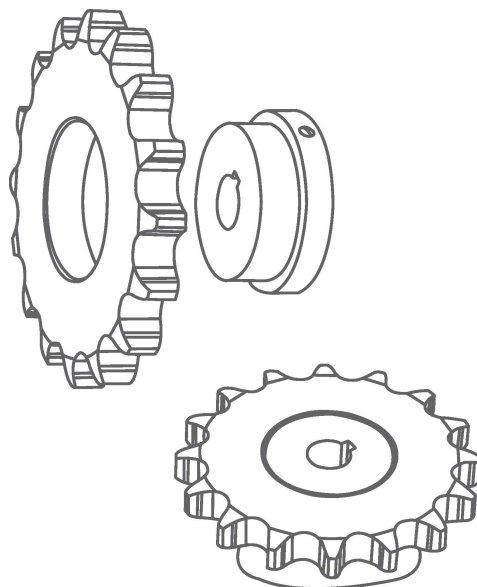
Weld-on Hubs



CM



CM-FB



CM Weld-on Hubs

material:S45C

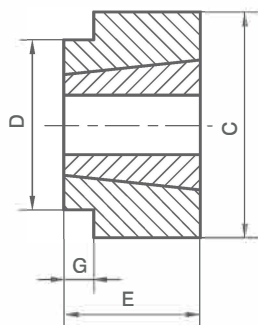
Hub Rel	Bore		main dimensions (mm)				kg
	Min	Max	C	D	E	G	
CM40	10	25	50	40	28	11.10	0.46
CM50	10	28	60	50.8	30	11.10	0.77
CM60	12	32	70	60	35	16.20	1.20
CM70	14	42	83	70	40	18.50	1.91
CM90	18	50	106	90	50	24.10	2.84
CM110	20	60	127	110	60	24.10	5.97
CM130	25	75	152	130	70	24.10	9.98
CM155	35	90	184	155	90	24.10	16.7

CM-FB Weld-on Hubs Bore

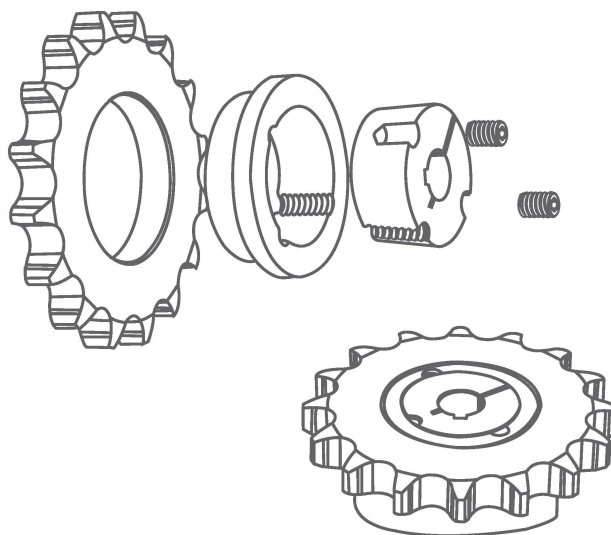
Hub Rel	Weld-on Hubs Bore																											
	10	12	14	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	65	70	75	80	85	90
CM40FB	○	○	○	○	○	○	○	○	○	○																		
CM50FB	○	○	○	○	○	○	○	○	○	○	○																	
CM60FB		○	○	○	○	○	○	○	○	○	○	○	○															
CM70FB			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○											
CM90FB					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○								
CM110FB							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○						
CM130FB									○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
CM155FB															○	○	○	○	○	○	○	○	○	○	○	○	○	○

Weld-on Hubs

T_{aper}
 B_{ore}



CW



CW Weld-on Hubs

material:S45C

Hub Rel	Bush No	Bore		main dimensions (mm)			
		Min	Max	C	D	E	G
CW1008	1008	10	25	60	50.8	22	11.10
CW1210	1210	12	32	70	60	25	11.10
CW1215	1215	12	32	70	60	38	16.20
CW1610	1610	14	42	83	70	25	18.50
CW1615	1615	14	42	83	70	38	24.10
CW2012	2012	18	50	106	90	32	24.10
CW2517	2517	20	60	127	110	45	24.10
CW3020	3020	25	75	152	130	51	24.10
CW3030	3030	25	75	152	130	76	24.10
CW3535	3535	35	90	184	155	89	24.10

CW Weld-on Hubs Bush Bore

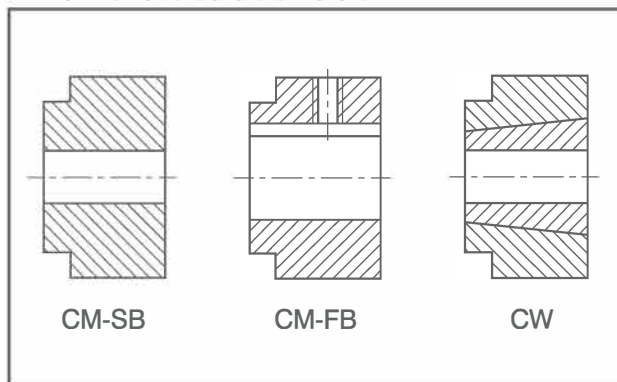
Hub Rel	Bush	Waper Bushing Bore																													
		10	12	14	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	65	70	75	80	85	90		
CW1008	1008	○	○	○	○	○	○	○	○	○	○																				
CW1210	1210		○	○	○	○	○	○	○	○	○	○	○	○																	
CW1215	1215		○	○	○	○	○	○	○	○	○	○	○	○																	
CW1610	1610			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○													
CW1615	1615			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○													
CW2012	2012					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○											
CW2517	2517							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○									
CW3020	3020										○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○					
CW3030	3030										○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○					
CW3535	3535														○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		

Easily installed Hubs

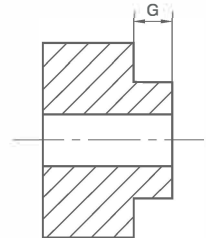
OPERATION INSTRUCTION FOR CM, CW HUBS

CM, CW HUBS

There are two kinds of bores for CM hubs: the pilot bore (can be reproduced into different types of bores, e.g. split bore, hex bore and square bore, etc.), and finished bore. CW hubs are paired with BTL taper bores. After matching the hubs with the BTL taper bushings, they can meet the requirements for various bore diameters.



to meet the thicknesses of the largest pitch. dimension "G" can be processed to reflect the largest one. For the small pitch sprocket if the dimension is less than the largest teeth thickness "G", it will probably become type C.



When welding, specific technology should be used (e.g. sub-arc-welding or carbon dioxide welding, etc.) to ensure the welding quality and avoid disfiguration. If care is not taken, the precision will be reduced and there will be difficulties when using.

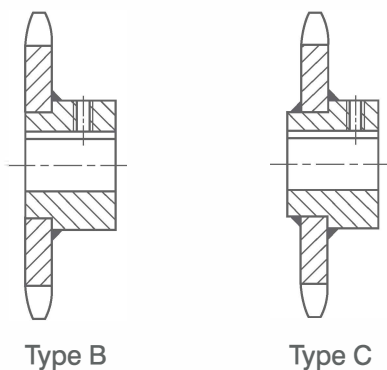
When CM/CW hubs are welded with plate wheels, welding should be done at the two sides for C type sprockets and for B type sprockets only the hub side should be welded.

When you want to reproduce the bore for CM hubs into other dimensions for forms, this process should be done after welding to keep all the run-outs and tolerances.

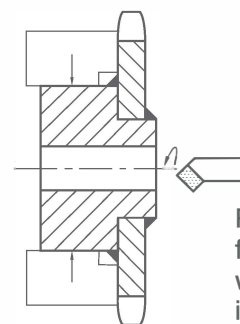
COMBINATION BETWEEN HUBS AND PLATE WHEELS

There are two kinds of methods to combine CM/CW hubs with plate wheels. Either by welding or using the riveted lap joint.

a). Connection by welding is suitable for sprockets with different teeth numbers, especially for sprockets with less teeth as they are not suitable for bolt joint. (Note: if the distance between hub and teeth is less than 6mm, it is not suitable for welding since the welding area will probably cause trouble for chain movement).



You can either get B type or C type simplex combinations through welding in order



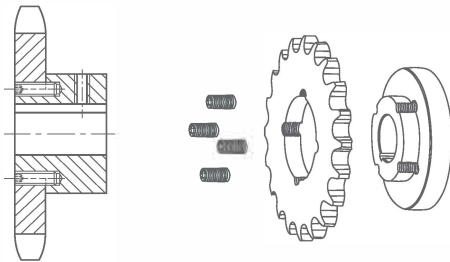
Please take a think of the factors that welding aero will interfere the claming in order to avoid any effects to process precision

b). Rivet joint is also suitable for the combination between CM/CW hubs and plate wheels, especially for sprockets with small teeth numbers which are not fit for welding.

To use rivet joint, holes in proper sizes should be drilled and tapped at the connecting area. Then fix relevant inner hex screws to increasing strength. By doing so hubs and plate wheels can be combined into a rivet form.

Easy install Hubs

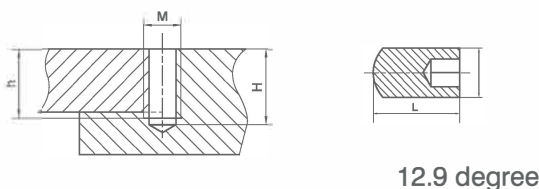
Combination sprockets in rivet joint can be made with simple equipment (bench drill machine) and tools (relevant drill and tap). After simple processes (drilling and tapping holes), combination sprockets of different specifications and with different usages can be made so they can meet all kinds of assembling conditions.



Using finished bore hubs or taper bore hubs, other machining processes can be avoided. They have characteristics of high precision; They are unshaped with low producing cost and are easy to incorporate onto exiting equipment.

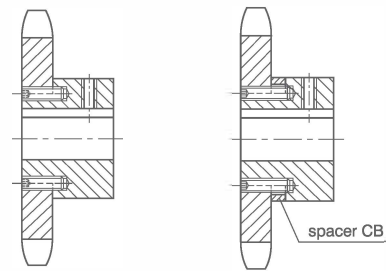
TABLE FOR DIMENSIONS OF CM, CW HUB FOR RIVET JOINT

CM Hubs	CW Hubs	h	H	n-M	MxL
CM40	-	16	20	4-M6	M6x15
CM50	CW1008	22	25	4-M6	M6x20
CM60	CW1210	25	30	6-M6	M6x22
CM70	CW1610	28	33	6-M6	M6x25
CM90	CW2012	35	40	6-M8	M8x35
CM110	CW2517	35	40	6-M10	M10x35
CM130	CW3020	35	40	6-M12	M12x40
CM150	CW3535	35	40	6-M16	M12x40



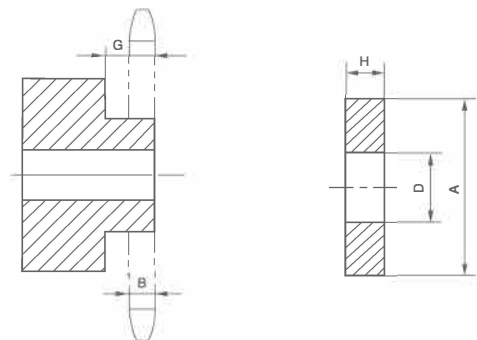
Rivet combination sprockets are installed with high strength inner hex screws. Their quantities and sizes are certified by our engineering's calculations. Their allowed strength while in use is all larger than those of keyways in the bores. This can ensure the rivets will not be damaged before the keyways and key stocks are. They are of high reliability and safety.

B type sprockets must be adopted when CM/CW hubs are combined with plate wheels.



Teeth thickness+spacer CB

"G" dimension of CM/CW hubs are designed to fit the largest ones in order to meet the requirements of tooth thickness on the largest plate wheels. If CM/CW hubs are combined with small pitch plate wheels, the "G" dimension will probably be larger than the tooth thickness. And if so, a special design spacer (CB) must be put between hubs and plate wheels so that a rivet joint can be preformed.



Teeth thickness < G

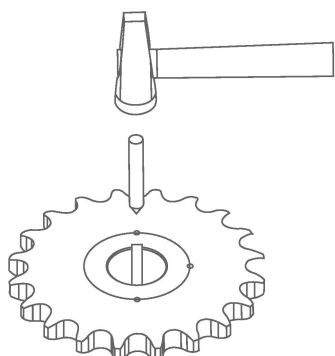
spacer CB

CM	CW	A	D	H					
				06B	08B	10B	12B	16B	20B
40	-	50	40	5.8	3.9	2.0			
50	1008	60	50	5.8	3.9	2.0			
60	1210	70	60	10.9	9.0	7.1	5.1		
70	1610	83	70	13.2	11.3	9.4	7.4	2.3	
90	2012	106	90		16.9	15	13	7.9	5.6
110	2517	127	110		16.9	15	13	7.9	5.6
130	3020	152	130					7.9	5.6

Easy install Hubs

INSTRUCTION FOR RIVET JOINT

1. To combine the relevant hub and sprocket together, the number of set screws can be selected according to the design requirement (check with data list), and make the punching marks at the joint of the sprockets and hubs.

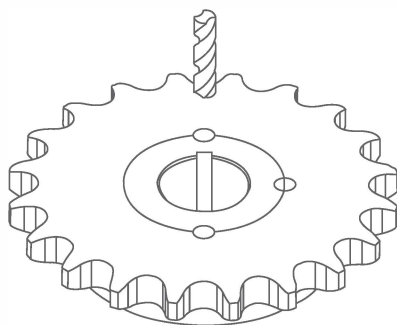


Please notice the equal spacing requirement. There is no need to be extremely precise, you can draw a line across.

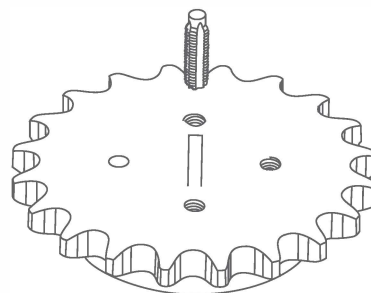
Note: 1. when using finished bore hubs to combine with sprocket, if there is a requirement of hub keyway to be centerlined with the teeth of the sprocket a precise line should be drawn to ensure its centerlined requirement.

2. when using the CW taper bore hub, please be sure that bush screw hole and riveting hole to be staggered.

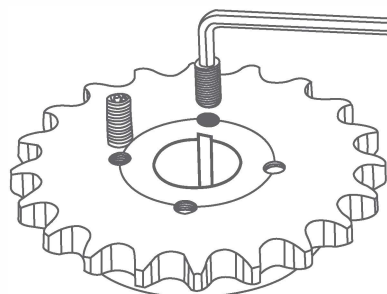
2. To drill the pilot bore to a certain depth according to the drilling requirement.



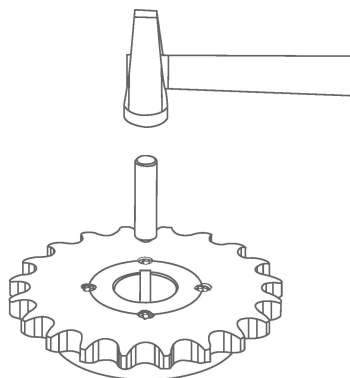
3. To tap the screw hole to the demanded depth, use the manual method if necessary.



4. Using the relevant hexagon wrench to tighten all screws in turns and after tightening screw safely, calcic can be used to prevent corrosion and dust.



5. After tightening the screws, for the purpose of preventing the screws from loosening and failing, you can use a drift and drift the edge of threaded holes to make it turn inward a bit.



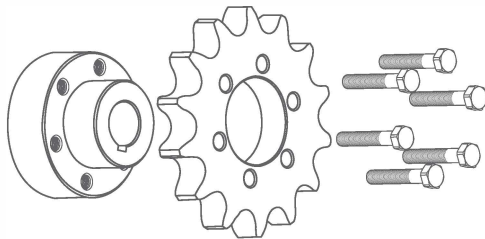
SM-SW

Easy install Hubs

OPERATION INSTRUCTION ABOUT SM, SW HUBS

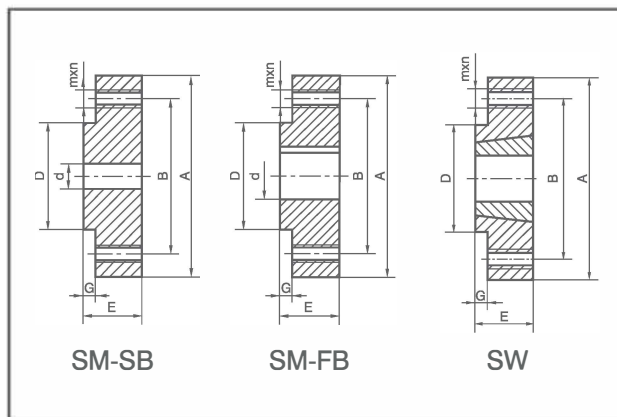
TAPER OF SM/SW HUBS

SM/SW hubs are of multi usages when combined with plate wheels by fixing bolts into the flanges. The flange holes of hubs are corresponded with the flange holes of the plate wheels. These kinds of hubs are applicable for plate wheels in medium or large pitch or with large teeth numbers. (Plate wheels with small teeth numbers or small pitch can not use SM/SW hubs due to the limitation of root diameters).



SM hubs are with plain bore (pilot bore or finish bore) and SW hubs are paired with taper bore (BTL).

There are two kinds of bores for SM hubs: pilot bores (which can be remade into all kinds of taper bores or special bores, i.e. spline bores, hexagonal bores, and square bores) and finished bores.

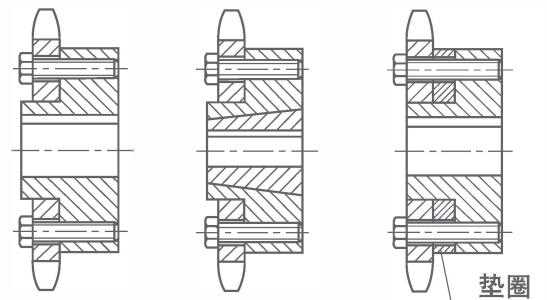


The bores for SW hubs are taper bores. They are matched with CAPT-BTL and can meet assembling for bores $\Phi 12$ - $\Phi 90$.

JOINT METHODS FOR SM, SW HUBS

When you use SM/SW hubs, high strength bolts of proper size and quantities must be used. The hubs and plate wheels are combined together after fixing the bolt into the flange.

We can use SM/SW hubs to make "C" type or "B" type sprockets after combing with plate wheels of different pitches.



Please note: As to small teeth numbers or small pitch plate wheels, SM/SW hubs might not be suitable.

"G" dimension of SM/SW hubs are designed to the largest ones in order to meet the requirement of teeth thickness of the largest plate wheels. The combined sprockets will be "C" type if the teeth thickness is small than the "G" dimensions. In this case, if you need "B" type a special design "SB" must be placed between the hub and plate wheel.



SM-SW

Easy install Hubs

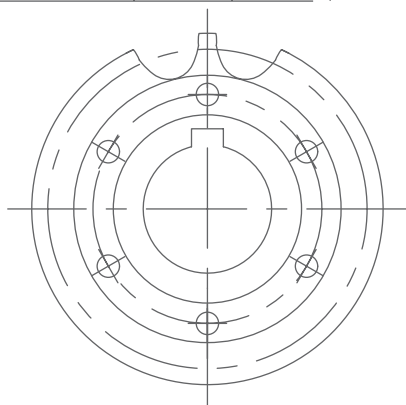
**TABLE FOR SB DIMENSION USED
WITH SM/SW HUBS**

	SM70 SW1610	SM90 SW2012	SM110 SW2517	SM130 SW3020	
A	130	140	175	211	
B	102	121	146	181	
D	70	90	110	130	
n-M	4-9.5	6-9.5	6-11.5	6-13.5	
06M	1.9	-	-	-	
08B	-	3.9	11.3	-	
10B	-	2.0	9.4	-	
12B	-	-	7.4	-	
16B	-	-	2.3	8.0	
20B	-	-	-	5.6	

Degree 12.9 high strength bolts should be adopted for SM/SW hubs. The sizes and quantities can fully support the sprockets when they are in the largest power transmission; very reliable and safe. If the plate wheels or hubs are ruined, just remove the damages parts. This can save time and money on maintenance.

TABLE FOR BOLT DIMENSION

	SM	SW	MxL	n
	70	1610	M8x25	4
	90	2012	M8x30	6
	110	2517	M10x45	6
	130	3020	M12x50	6
		3030	M12x75	6
	155	3535	M16x85	6



When the flange of the plate wheel is machined, the benter line of the teeth must be kept in line with a hole of the flange, then make a mark. When the keyway of the finished bore hub is machined, its center line must connect with a hole of the flange, then make a mark. By doing so we can ensure the keyway of the hubs are in line with the teeth of the combined sprockets.

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Comprehensive technical support



Powerful product series



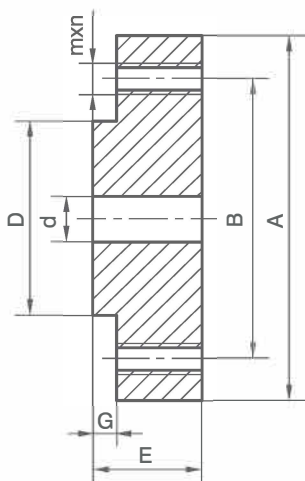
Speedy distribution and delivery

SM

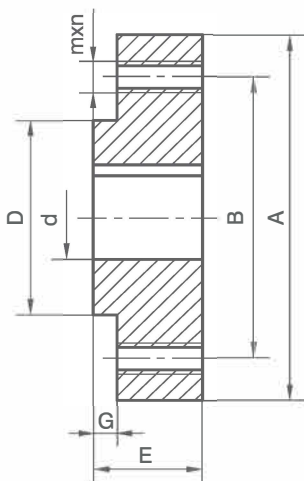
Easy install Hubs

S_{standard}
B_{ore}

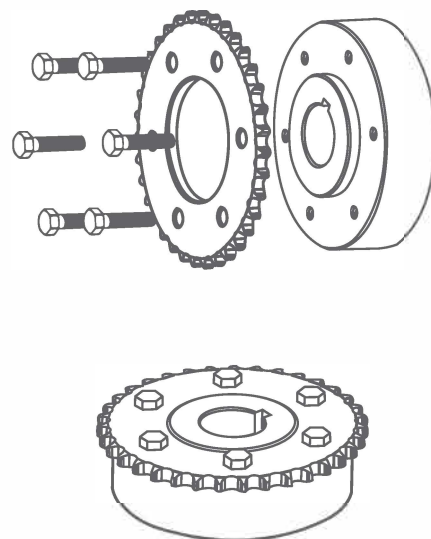
F_{inished}
B_{ore}



SM-SB



SM-FB



SM Easy install Hubs

material:S45C

Hub Rel	Bore d		main dimensions (mm)					screw hole Mxn
	Min	Max	A	B	D	E	G	
SM70	14	42	130	102	70	40	7.2	M8x4
SM90	18	50	140	121	90	50	11.1	M8x6
SM110	20	60	175	146	110	60	18.5	M10x6
SM130	25	75	211	181	130	70	24.1	M12x6
SM155	35	90	241	215	155	90	24.1	M16x6

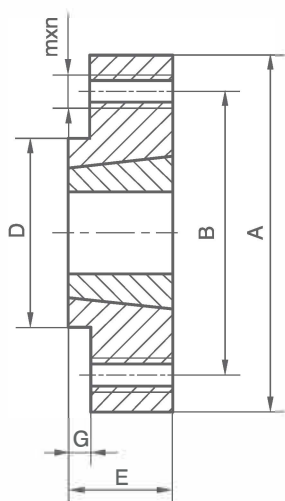
SM-FB Easy install Hubs

Hub Rel	Hubs Finslshed Bore																											
	14	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	65	70	75	80	85	90		
SM70FB	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○													
SM90FB			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○										
SM110FB					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○								
SM130FB								○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○					
SM155FB												○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

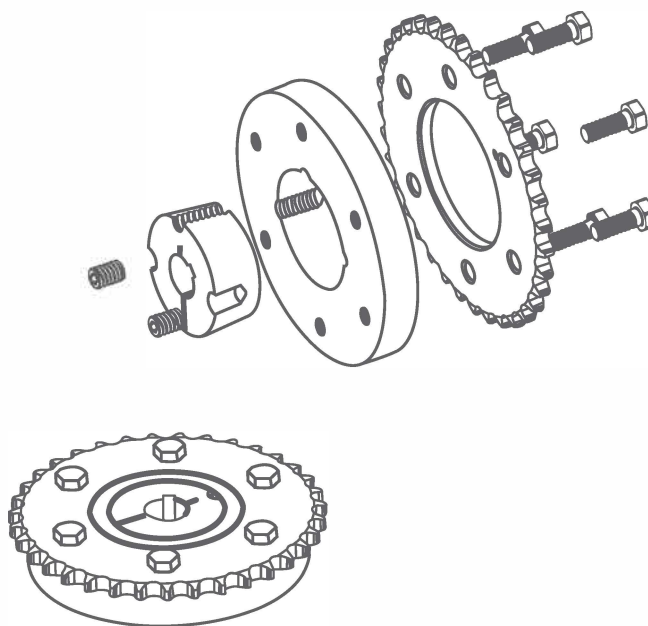
Easy install Hubs

SW

T_{aper}
B_{ore}



SW



SW Weld-on Hubs

material:S45C

Hub Rel	Bush No	main dimensions (mm)					screw bale Mxn
		A	B	D	E	G	
SW1610	1610	130	102	70	25	7.2	M8x4
SW2012	2012	140	121	90	32	11.1	M8x6
SW2517	2517	175	146	110	45	18.5	M10x6
SW3020	3020	211	181	130	51	24.1	M12x6
SW3030	3030	211	181	130	75	24.1	M16x6
SW3535	3535	241	215	155	89	24.1	M16x6

SW Weld-on Hubs Taper bushing Bore

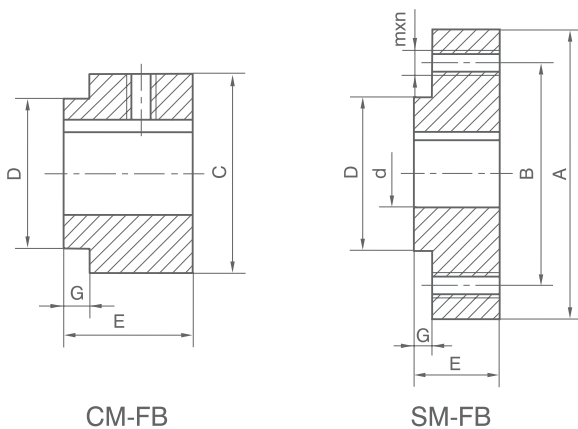
Hub Rel	Bush No	Taper Bushing Bore																					
		14	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	65	70
SW1610	1610	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
SW2012	2012			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
SW2517	2517					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
SW3020	3020								○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
SW3030	3030								○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
SW3535	3535												○	○	○	○	○	○	○	○	○	○	○

Easy install Hubs

FINISHED BORE HUBS

Customers can adopt hubs with different finished bores to make sprockets for different types and uses (simplex and duplex sprockets, double single sprockets, and complex sprockets with different teeth numbers).

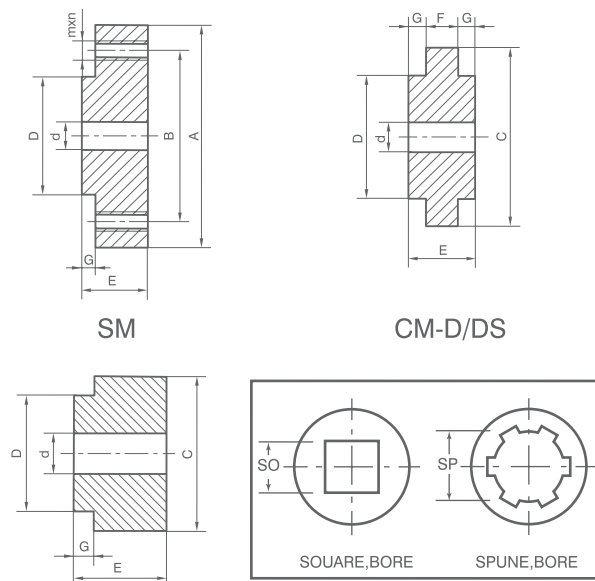
Hubs with finished bore adopt the ISO standard bore dimensions, standard keyways, and set screws, and bore diameters form 10-90.



Finished bore connection hubs
tow typer: CM,SM

PILOT BORE HUBS

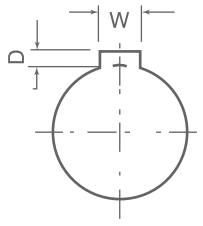
Can provide pilot bore hubs for different assemblies in order for the customer to reproduce the bore according to their special needs, such as spline bores, square bores, hex bores and other special types of bores.



Pilot bore connection hubs have six types:
CM, CM-D, CM-DS, SM, SM-D, and SM-DS.

DETAIL LIST OF KEYWAYS, SET SCREWS FOR STANDARD BORE

Bore	Keyway WXD	Set Screws
10	3x1.4	M4
11-12	4x1.8	M4
14-16	5x2.3	M4
18-22	6x2.8	M5
24-30	8x3.3	M6
32-38	10x3.3	M8
40-42	12x3.3	M10
45-50	14x3.8	M12
55	16x4.3	M12
60-65	18x4.4	M16
70-75	20x4.9	M16
80-85	22x5.4	M16
90-95	25x5.4	M16



**F^{inished}
B_{ore}**

FINISHED BORES

Bore	CM40	CM50	CM60	CM70 SM70	CM90 SM90	CM110 SM110	CM130 SM130	CM155 SM155
10	●	●						
12	●	●	●					
14	●	●	●	●				
16	●	●	●	●				
18	●	●	●	●	●			
20	●	●	●	●	●	●		
22	●	●	●	●	●	●		
24	●	●	●	●	●	●		
25	●	●	●	●	●	●		
28		●	●	●	●	●	●	
30			●	●	●	●	●	
32			●	●	●	●	●	
35			●	●	●	●	●	●
38				●	●	●	●	●
40				●	●	●	●	●
42				●	●	●	●	●
45					●	●	●	●
48					●	●	●	●
50					●	●	●	●
55						●	●	●
60						●	●	●
65							●	●
70							●	●
75							●	●
80								●
85								●
90								●

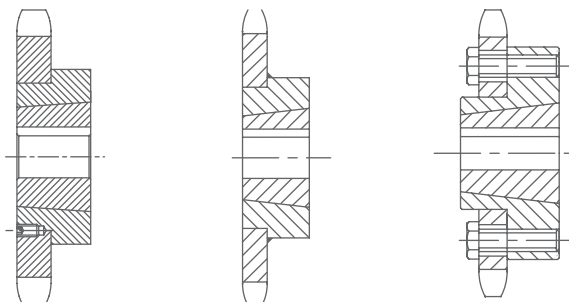
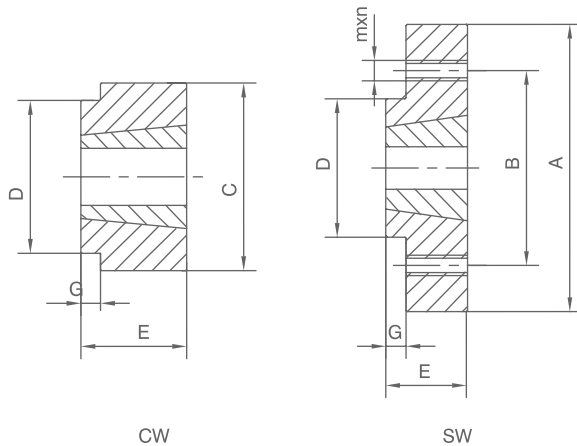
These are all suitable for hubs with finished bores. All the dimensions listed for keyways are also available for bushings (not including shallow keyways).

Easy install Hubs

**T_{aper}
B_{ore}**

CW SW

CW and SW Hubs using BTL Bushings for
Combinatory Sprockets



Riveting
Taper Hubs

Welding

Bolting

Combining method for CW and SW

1. Taper hubs while using BTL bushings are specially Combinatory Sprockets. There are two kinds of taper hubs: CW and SW. To use the relative type of BTL bushings without re-machining, all your inner bore dimensional requirements can be met.
2. CW taper hubs are suitable for smaller diameter Combinatory Sprockets. After welding and riveting with plate wheels, the complete Combinatory Sprockets can meet all the functional requirements.
3. SW taper hubs are suitable for larger diameter Combinatory Sprockets. High tensional bolts are used to fix the plate wheels and hubs together. No more machining is required and it is the fastest way to form the finished bore sprockets.
4. As the hubs are taper bored and they are used together with BTL bushings, this combination is suitable for all kinds of standard bore sizes. In this way the inventory can be largely reduced both in terms of items and in quantities.

TAPER BORE HUBS

Using hubs with taper bore matched BTL bushings, you can get the parts with the whole series of standard bore dimensions (10-90, precision H7) with standard keyways, no lathing is needed. After combining with plate wheels, a standard series of taper lock sprockets can be formed which prove to be very convenient for users.



BTL

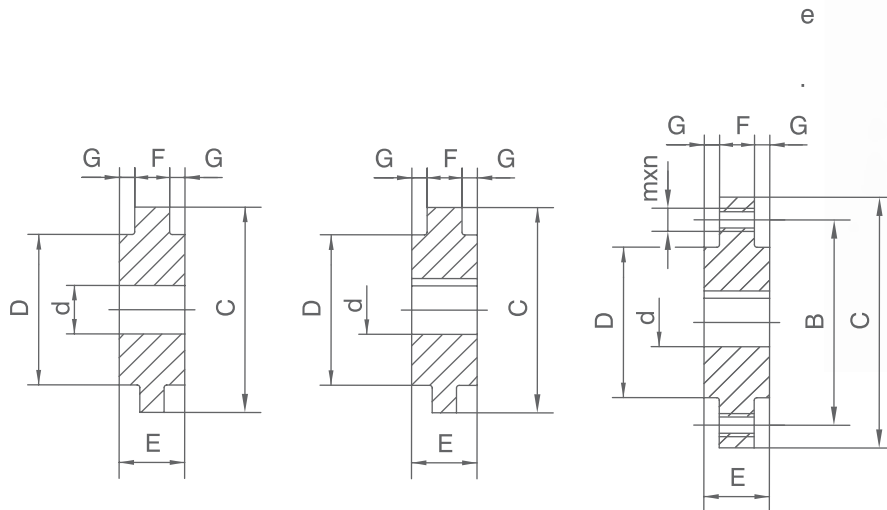
Taper Bushing Bores

Bore	Taper Bushing					
	1610	2012	2517	3020	3030	3535
14	●					
16	●					
18	●	●				
20	●	●	●			
22	●	●	●			
24	●	●	●			
25	●	●	●	●	●	
28	●	●	●	●	●	
30	●	●	●	●	●	
32	●	●	●	●	●	
35	●	●	●	●	●	●
38	●	●	●	●	●	●
40	●	●	●	●	●	●
42	●	●	●	●	●	●
45		●	●	●	●	●
48		●	●	●	●	●
50		●	●	●	●	●
55			●	●	●	●
60			●	●	●	●
65				●	●	●
70				●	●	●
75				●	●	●
80						●
85						●
90						●

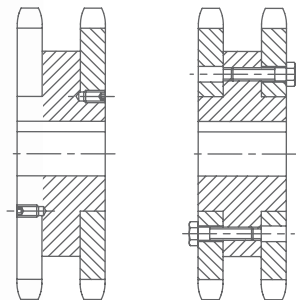
Easy install Sprockets Weld-on Sprockets



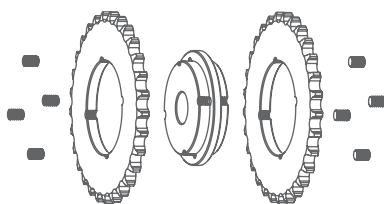
CMD and SMD are the special Hubs for the Combinatory Sprockets which use the Standard Duplex Chains.



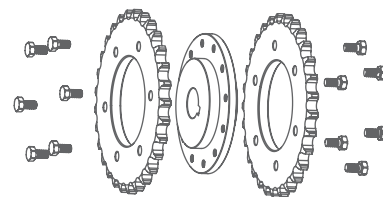
We have stock for CMD Hubs with both pilot bores and finished bores but we only supply finished bore for SMD Hubs.



For CMD Hubs, riveting is applied to form Duplex Sprockets and for SMD hubs we use bolts to form duplex sprockets.



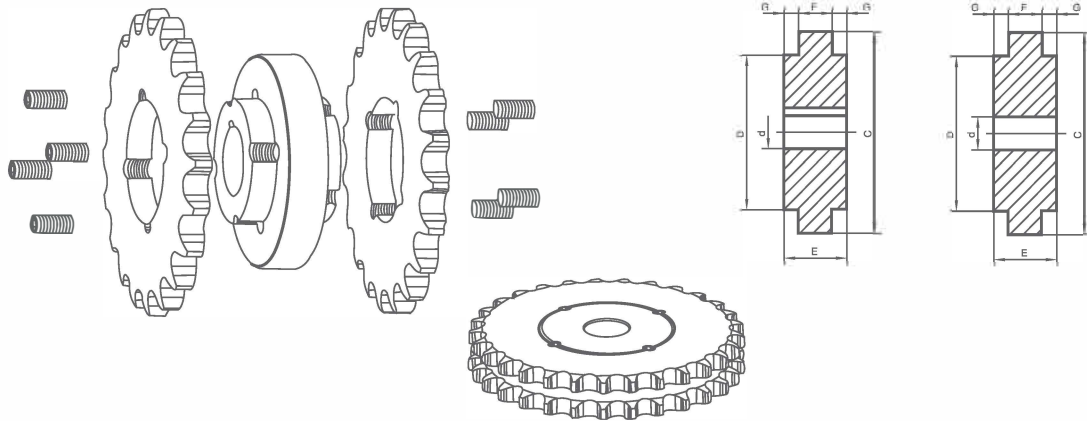
Riveting with screws are suitable for smaller diameter combinatory sprockets.



Bolts are suitable for larger diameter combinatory sprockets.

Weld-on Hubs

CMD

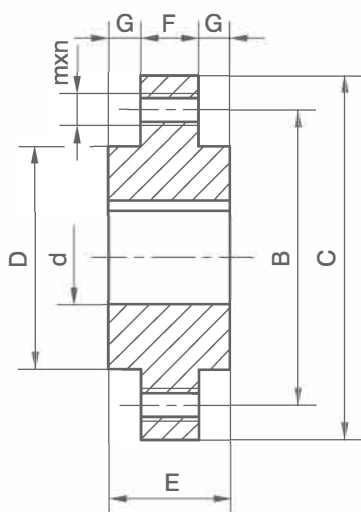


CMD Weld-on Hubs

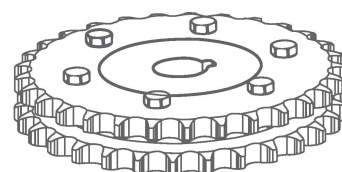
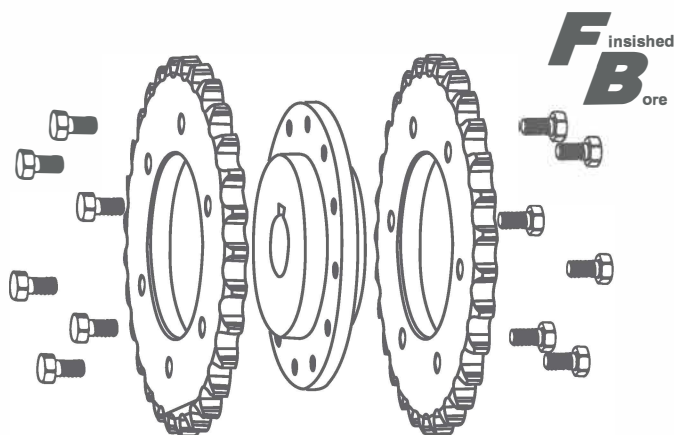
Hub Rel	sprocket No.	Bore d		main dimensions (mm)					Kg
		Min	Max	C	D	G	E	F	
CMD40	06B	10	25	50	40	5.2	15.4	5.0	0.2
	08B					7.1	21.0	6.8	0.3
	10B					9.0	25.5	7.5	0.38
	12B					11.0	30.3	8.3	0.43
CMD50	06B	10	28	60	50	5.2	15.4	5.0	0.3
	08B					7.1	21.0	6.8	0.45
	10B					9.0	25.5	7.5	0.55
	12B					11.0	30.3	8.3	0.65
CMD60	06B	12	32	70	60	5.2	15.4	5.0	0.45
	08B					7.1	21.0	6.8	0.6
	10B					9.0	25.5	7.5	0.75
	12B					11.0	30.3	8.3	0.91
	16B					16.0	47.7	15.7	1.4
CMD70	06B	14	42	83	70	5.2	15.4	5.0	0.62
	08B					7.1	21.0	6.8	0.85
	10B					9.0	25.5	7.5	1.0
	12B					11.0	30.3	8.3	1.25
	16B					16.0	47.7	15.7	1.95
	20B					18.4	54.6	17.8	2.2
CMD90	08B*	18	50	106	90	7.1	21.0	6.8	1.4
	10B					9.0	25.5	7.5	1.7
	12B					11.0	30.3	8.3	2.0
	16B					16.0	47.7	15.7	3.3
	20B					18.4	54.6	17.8	3.7
	24B					23.8	72.0	24.4	4.9
CMD110	08B*	20	60	127	110	7.1	21.0	6.8	2.1
	10B*					9.0	25.5	7.5	2.5
	12B*					11.0	30.3	8.3	2.9
	16B					16.0	47.7	15.7	4.6
	20B					18.4	54.6	17.8	5.2
	24B					23.8	72.0	24.4	7.0
CMD130	16B*	25	75	152	130	16.0	47.7	15.7	6.6
	20B*					18.4	54.6	17.8	7.6
	24B					23.8	72.0	24.4	10.2
CMD155	24B*	35	90	184	155	23.8	72.0	24.4	14.9

Easy install Hubs

SMD



SMD-FB



SMD Easy install Hubs

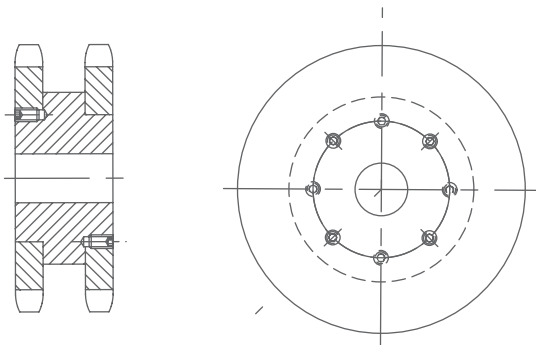
Hub Rel	sprocket No.	Bore		main dimensions (mm)						screw hole Mxn	Kg ③
		Min	Max	C	B	D	G	E	F		
SMD 70	06B	14	42	130	102	70	5.2	15.4	5.0	M8x8	1.5
	08B						7.1	21.0	6.8		2.1
SMD 90	08B	18	50	140	121	90	7.1	20.0	6.8	M8x12	2.5
	10B						9.0	25.5	7.5		3.0
	12B						11.0	30.3	8.3		3.6
SMD 110	10B	20	60	175	146	110	9.0	25.5	7.5	M10x12	4.5
	12B						11.0	30.3	8.3		5.5
	16B	20	60	175	146	110	16.0	47.7	15.7		8.6
	20B						18.4	54.6	17.8		9.8
SMD 130	16B	25	75	211	181	130	16.0	17.7	15.7	M12x12	12.7
	20B						18.4	54.6	17.8		15.0
	24B						23.80	72.0	24.4		20.0
SMD 155	24B	35	90	241	215	155	23.80	72.0	24.4	M16x12	25.5
	-						—	—	—		—

SMD-FB Easy install Hubs Bore

Hub Rel	Hubs Finished Bore																							
	14	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	65	70	75	80
SMD70FB	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○									
SMD90FB			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○						
SMD110FB					○	○	○	○	○	○	○	○	○	○	○	○	○	○	○					
SMD130FB								○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
SMD155FB												○	○	○	○	○	○	○	○	○	○	○	○	○

Easy install Hubs

Riveting Diagram for Duplex Combinatory Sprockets : Used with standard duplex roller chains.



When riveting the plate wheels on both sides of the hubs, the rivet holes should be interlaced. The method of processing rivets is the same as when they are processed for simplex sprockets.

Dimensions for Processing Rivet Holes.

Sprockets					
	MAX	Min	H	L	
06B	M6	M6	10	8	(3)
08B	M6	M6	14	10	
10B	M10	M6	18	15	(4)
12B	M10	M6	20	16	
16B	M12	M8	30	25	
20B	M12	M8	30	25	
24B	M16	M10	35	30	

Contract for Hubs and Rivets .

Hubs	n	Sprockets		L	
		min	max	min	max
CMD40	4x2	06B	12B	8	-
CMD50	4x2	06B	12B	8	-
CMD60	6x2	06B	16B	8	25
CMD70	6x2	06B	20B	8	25
CMD90	6x2	08B	24B	10	30
CMD110	6x2	08B	24B	10	30
CMD130	6x2	16B	24B	24	30
CMD150	6x2	-	24B	-	30

The above two tables list the dimensions of the combinatory sprockets of different pitches when they are processed for riveting purposes and also the dimensions of the rivets used with different size hubs. When choosing the rivets, our suggestion is the bigger the better to ensure the strength if only they are acceptable to the combinatory sprockets.

The strength of the rivets is 12.9.

Hubs	Sprockets	Screw Hole	
		n	MxL
SMD70	06B	8	M8x15
	08B	8	M8x20
SMD90	08B	12	M8x20
	10B	12	M8x25
SMD110	12B	12	M8x30
	10B	12	M10x25
	12B	12	M10x30
	16B	12	M10x45
SMD130	20B	12	M10x50
	16B	12	M12x45
	20B	12	M12x50
SMD150	24B	12	M12x70
	24B	12	M16x70

Bolt Dimensions for SMD Hubs.

The strength of the bolts is 12.9.

When the SMD hubs are combined with plate wheels, the bolts should be interlaced, i.e. there should be a 1/2 percent of the total quantity on each side.

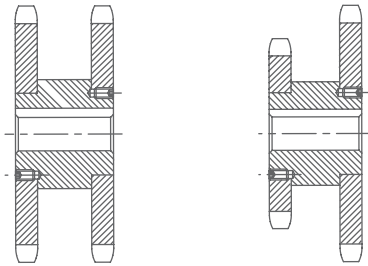
SMD hubs are sold in finished bore. After combined with plate wheels, the combinatory sprockets can be used immediately with no further processing.



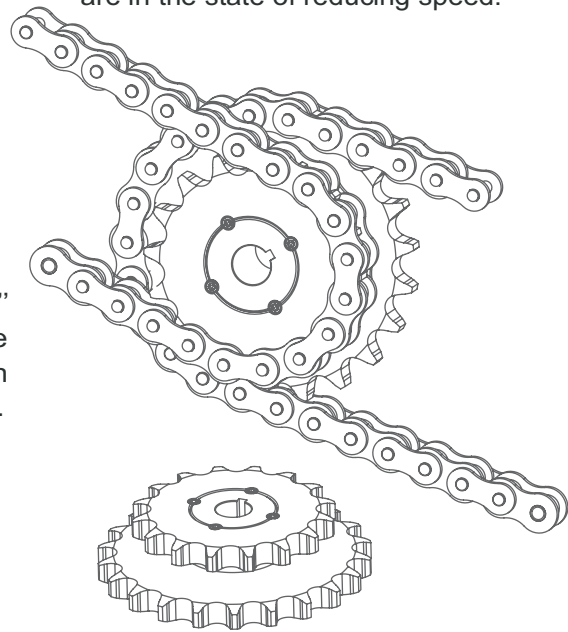
Easy install Sprockets Weld-on Sprockets



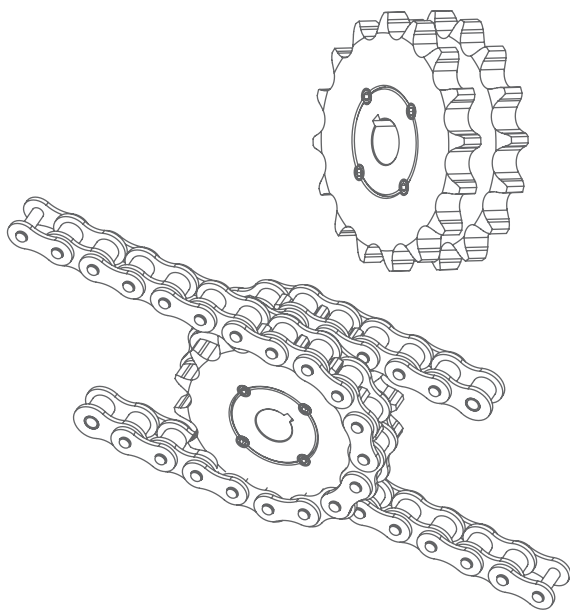
Combinatory DS Sprockets are designed exactly according to the standard DS Sprockets. They are made by CMDS hubs and standard plate wheels.



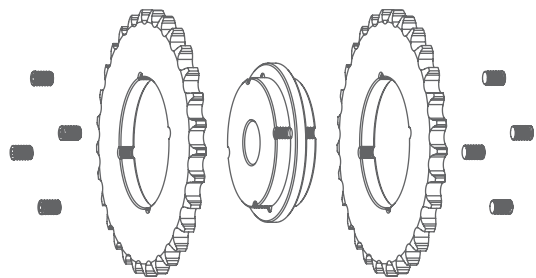
When driving wheels begin with more number of teeth, the transmission is the state of increasing speed, otherwise when driving wheels begin with less number of teeth, they are in the state of reducing speed.



DS Sprockets can be formed from pitches 1/2" to 1 1/4 " within 60 numbers of teeth. The combination can be made freely to form both equal-speed and unequal speed DS Sprockets.



The only way to connect CMDS hubs with plate wheels is riveting by bolts. The process of connecting the holes is the same as CMD hubs.



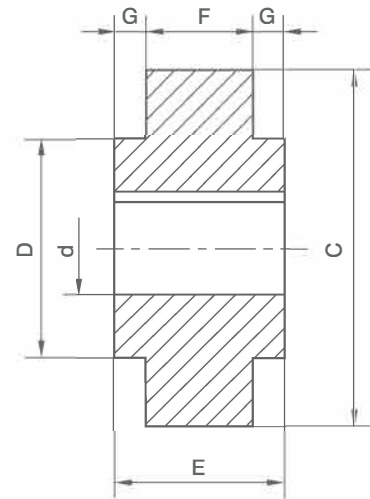
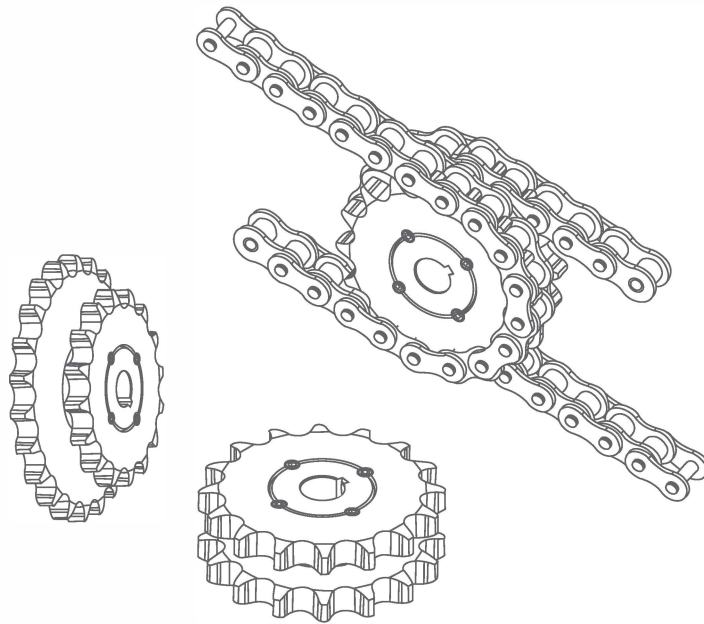
Combinatory equal-speed sprockets can be formed by using two plate wheels of the same pitch and equal number of teeth and CMDS hubs. They are used in the constant transmissions with multi-steps.

Combinatory unequal-speed sprockets can be formed by using two plate wheels of different numbers of teeth with different pitches and CMDS hubs. This can acquire transmission of increasing speed or requirements.

When making unequal-speed DS-B sprockets, the hubs should be selected according to a larger pitch of plate wheels and a spacer should be added to the side of the smaller pitch plate wheel to ensure that the two sides of the plate wheels will be the same as the hubs' sides. Otherwise, it is impossible in making the riveting holes and installation cannot be completed.

Easy install Hubs

CMDS



CMDS

CMDS Weld-on Hubs

Hub Rel	sprocket No.	Bore		main dimensions (mm)					Kg
		Min	Max	C	D	G	E	F	
CMDS40	08B	10	25	50	40	7.1	31.0	16.8	0.30
	10B					9.0	36.5	18.5	0.38
	12B					11.0	45.0	23.0	0.43
CMDS50	08B	10	28	60	50	7.1	31.0	16.8	0.45
	10B					9.0	36.5	18.5	0.55
	12B					11.0	45.0	23.0	0.65
CMDS60	08B	12	32	70	60	7.1	31.0	16.8	0.60
	10B					9.0	36.5	18.5	0.75
	12B					11.0	45.0	23.0	0.91
	16B					16.0	63.5	31.5	1.40
CMDS70	08B	14	42	83	70	7.1	31.0	16.8	0.85
	10B					9.0	36.5	18.5	1.00
	12B					11.0	45.0	23.0	1.25
	16B					16.0	63.5	31.5	1.95
	20B					18.0	70.0	33.2	2.20
CMDS90	10B	18	50	106	90	9.0	36.5	18.5	1.70
	12B					11.0	45.0	23.0	2.00
	16B					16.0	63.5	31.5	3.30
	20B					18.4	70.0	33.2	3.70
CMDS110	16B	20	60	127	110	16.0	63.5	31.5	4.60
	20B					18.4	70.0	33.2	5.20
CMDS130	20B	25	75	152	130	18.4	70.0	33.2	6.60