

N-RSD

MS-RS-D RS-D



Outstandingly high efficiency in threading of smaller external screw threads.

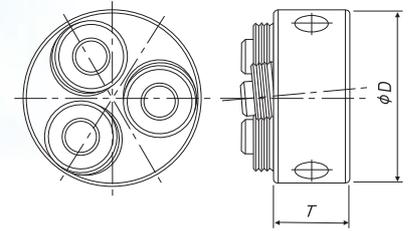
N-RSD MS-RS-D RS-D

Dimensions



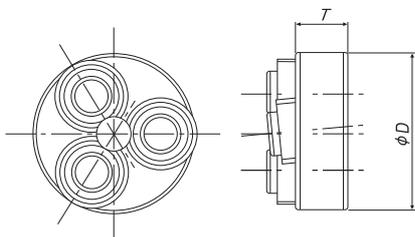
N-RSD

New Rolling Die



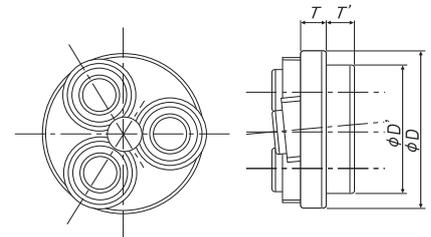
MS-RS-D S0.5~0.9

Miniature New Rolling Die



RS-D M1

Rolling Die



Features

- N-RSD has solved the typical problems that happen when threading external threads with 0,5mm pitch and achieved outstanding efficiency.**

Common troubles on thread rolling dies

- Due to the excessive load factor on threading with more than 0.5 mm pitch, the adjustment feeding is necessary (Adjustment of ball screws, mechanical and spring)
- Tool damage can easily occur.
- Excessive chamfer load can develop wear and shorten the tool life.



Prompt solution with
New Rolling Dies

- Large reduction of chamfer load**
- Suitable for the threading on wide-variety low-volume production, and smaller diameter**

Advantage of New Rolling Dies

- On threading with more than 0.5 mm pitch, troublesome feed adjustment becomes unnecessary.
- Tool damage drastically decreases due to lower chamfer load.
- Tool life extends due to lower chamfer load.
- Due to the excessive load factor on threading with more than 0.5 mm pitch. (Threading of smaller diameter used to be a difficult machining because of material bending)

Machines

Please use with autolathes, lathes and machining centers.

Specifications

Yamawa Rolling Dies series

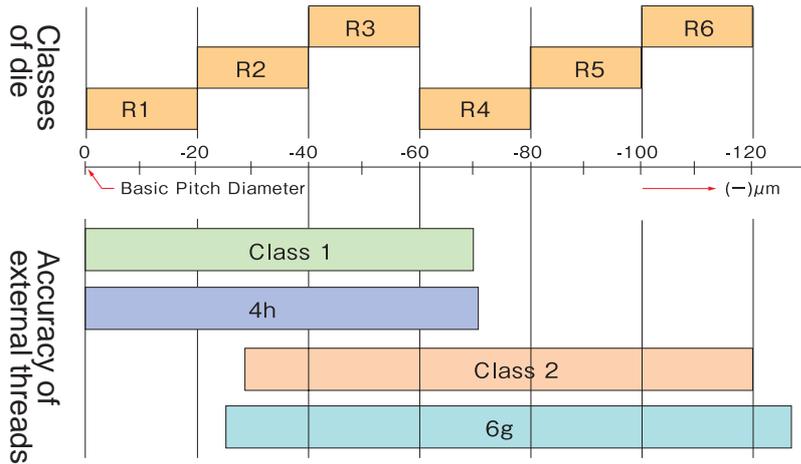
※OD=(outside diameter) unit: mm

size	product	OD	thickness	die class	external thread class	product code	material OD (rough)	
							max	min
M3X0.5	N-RS-D	25	9	R4	6g (for class 2)	NRGS3.0G	2.640	2.620
M4X0.7	N-RS-D	25	9	R4	6g (for class 2)	NRGS4.0I	3.540	3.520
M5X0.8	N-RS-D	25	9	R5	6g (for class 2)	NRGT5.0K	4.400	4.380
M6X1	N-RS-D	30	11	R5	6g (for class 2)	NRHT6.0M	5.300	5.280
M8X1.25	N-RS-D	38	13	R6	6g (for class 2)	NRJU8.0N	7.100	7.070
S0.5X0.125	MS-RS-D	6	2	5h3	5h3	RA20.5-	0.410	0.396
S0.6X0.15		6	2			RA20.6-	0.494	0.479
S0.7X0.175		6	2			RA20.7-	0.575	0.559
S0.8X0.2		8	3			RO20.8-	0.658	0.640
M1X0.25	RS-D	10	3.5	R2	4h (for class 1)	RBQ1.0B	0.808	0.785
				R3	6g (for class 2)	RBR1.0B		
M1.1X0.25		10	3.5	R3	6g (for class 2)	RBR1.1B	0.918	0.891
M1.2X0.25		10	3.5	R2	4h (for class 1)	RBQ1.2B	1.007	0.984
				R3	6g (for class 2)	RBR1.2B		
		R4	6g (for class 2)	RBS1.2B				
M1.4X0.3		10	3.5	R2	4h (for class 1)	RBQ1.4C	1.168	1.142
				R3	6g (for class 2)	RBR1.4C		
				R4	6g (for class 2)	RBS1.4C		
M1.6X0.35		16	5	R2	4h (for class 1)	RDQ1.4C	1.168	1.142
				R3	6g (for class 2)	RDR1.4C		
				R4	6g (for class 2)	RDS1.4C		
M1.7X0.35		16	5	R2	4h (for class 1)	RDQ1.6D	1.332	1.300
				R3	6g (for class 2)	RDR1.6D		
				R4	6g (for class 2)	RDS1.6D		
M1.8X0.35		16	5	R2	4h (for class 1)	RDQ1.7D	1.432	1.401
				R3	6g (for class 2)	RDR1.7D		
				R4	6g (for class 2)	RDS1.7D		
M2X0.4		16	5	R3	6g (for class 2)	RDR2.0E	1.699	1.669
R4				6g (for class 2)	RDS2.0E			
M2X0.25		16	5	R3	6g (for class 2)	RDR2.0B	1.796	1.771
				R4	6g (for class 2)	RDS2.0B		
M2.3X0.4		16	5	R2	4h (for class 1)	RDQ2.3E	1.998	1.968
				R3	6g (for class 2)	RDR2.3E		
				R4	6g (for class 2)	RDS2.3E		
M2.3X0.25		16	5	R3	6g (for class 2)	RDR2.3B	2.096	2.017
				R2	4h (for class 1)	RDQ2.5F		
M2.5X0.45		16	5	R4	6g (for class 2)	RDS2.5F	2.162	2.126
					R5	6g (for class 2)		
M2.5X0.35	20	7	R2	4h (for class 1)	REQ2.5F	2.162	2.126	
			R4	6g (for class 2)	RES2.5F			
			R5	6g (for class 2)	RET2.5F			
M2.5X0.35	16	5	R2	4h (for class 1)	RDQ2.5D	2.228	2.196	
			R3	6g (for class 2)	RDR2.5D			
			R4	6g (for class 2)	RDS2.5D			
M2.6X0.45	16	5	R2	4h (for class 1)	RDQ2.6F	2.262	2.226	
			R4	6g (for class 2)	RDS2.6F			
			R5	6g (for class 2)	RDT2.6F			
M2.6X0.35	20	7	R2	4h (for class 1)	REQ2.6F	2.262	2.226	
			R4	6g (for class 2)	RES2.6F			
			R5	6g (for class 2)	RET2.6F			
M2.6X0.35	16	5	R4	6g (for class 2)	RDS2.6D	2.318	2.278	
M3X0.5	20	7	R2	4h (for class 1)	REQ3.0G	2.627	2.589	
			R4	6g (for class 2)	RES3.0G			
M3X0.35	20	7	R2	4h (for class 1)	REQ3.0D	2.718	2.677	
			R4	6g (for class 2)	RES3.D			
			R5	6g (for class 2)	RET3.0D			
M3.5X0.35	20	7	R4	6g (for class 2)	RES3.5D	3.217	3.176	
			R5	6g (for class 2)	RET3.5D			
M4X0.5	20	7	R5	6g (for class 2)	RET4.0G	3.607	3.561	
			R6	6g (for class 2)	REU4.0G			
M5X0.5	20	7	R3	6g (for class 2)	RER5.0G	4.606	4.560	
			R4		RES5.0G			
			R5		RET5.0G			
			R6		REU5.0G			

for class 2

Classes of New Rolling Dies

Comparison of PD tolerance of external thread accuracy and die's class (Class R) (example M 6 x 1)



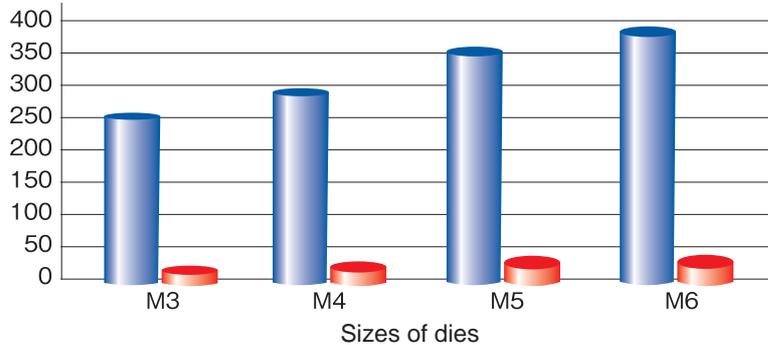
Class R shows PD tolerance of external screw thread formed by the rolling die.

Depending on the material, the accuracy of formed threads will change: please select the class that is suitable for the materials.

Comparison of chamfer load between the new rolling dies and the current rolling dies

Comparison of chamfer load on different sizes

material SUS303



RS-D: current Rolling Dies

N-RSD: new Rolling Dies

※N-RSD has a special design in its chamfer. In threading SUS303 material, the chamfer load of the new Rolling Dies is 1/10 to 1/20 that of current Rolling Dies.

For threading reliable screw threads, please use Yamawa's special die holders.

Die holder for Solid Dies
RD-DH (made-to-order)



To see in details how to use, please refer to



Warning

- ◆ Tools may shatter if broken. The wearing of eye protection glass is strongly advised in the vicinity of their use.
- ◆ The correct using conditions and handling of our tools are essential in securing maximum useful tool life and hazard free operation.
- ◆ The wearing of gloves is forbidden as the gloves may entangle with turning tools.
- ◆ Tools may hurt the users' feet when falling off. The safety shoes should be put on at all times.
- ◆ While fitting the tools to machine spindles and/or sleeves, care should be taken to avoid subjecting them to shock or impact.
- ◆ Check that the workpieces are properly seated and securely held in the chuck before switching on machine power.
- ◆ Do not use a tool whose cutting edges are worn-out or chipped severely.
- ◆ Tools may generate extreme heat during use. Fire protection is strongly recommended.

Changes may occur without advance notice.

Think threads with
YAMAWA

