

# JOINT TOOLS

Various types of cutting tool heads and EXCHANGABLE, depending on applications

■ Joint Tools ■

JO-CES

JO-CDS

JO-PEQ

JO-CESV

JO-CDSV

JO-PEQV

JO-CDS

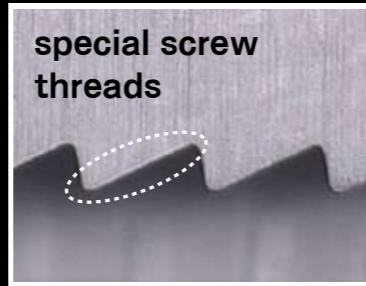
JO-CSQM

JO-NCSDV



# 1. Increased fastening power

Special screw threads widen the contact face and strengthen the fastening power.



# 2. Severe run-out tolerance

Severe run-out tolerance requirements is possible by giving cone shape at joining portion

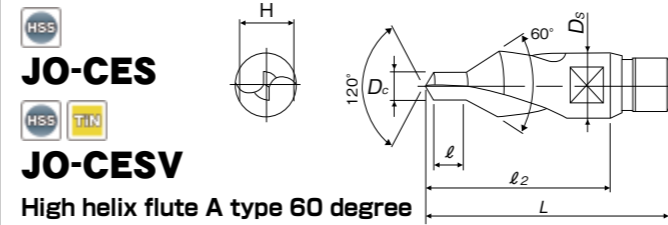


# 3. High rigidity

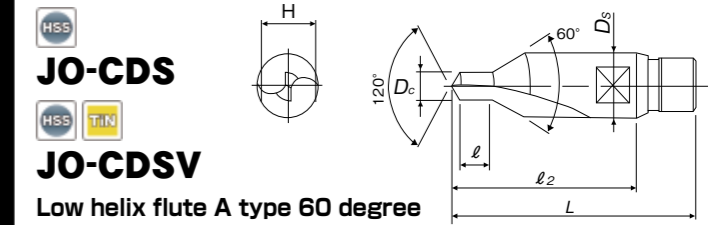
Powerful tightening assures the high rigidity, and enables an even load transmission during cutting operations.



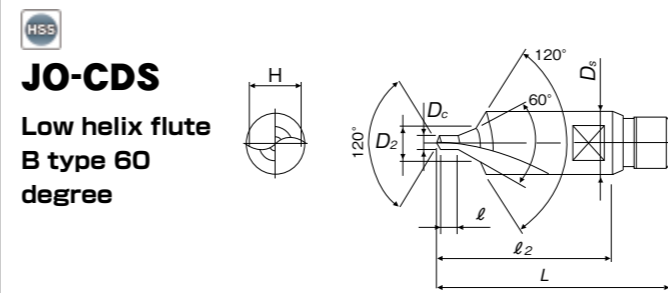
Lineup



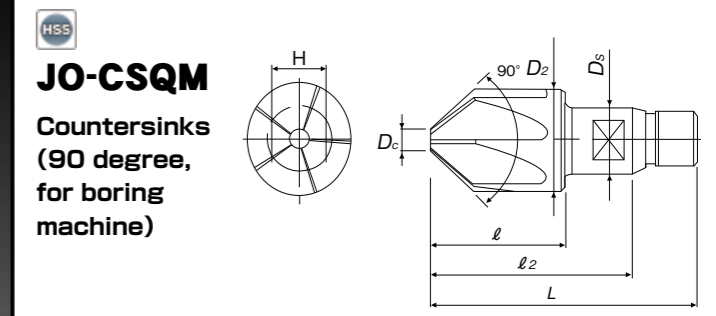
JO-CES	Size	Shank Dia. D <sub>s</sub>	Overall length L	l <sub>2</sub>	l	H	Applicable holder Shank Dia.	Code No.
JO-CES	4×60°	10	37.5	27.5	4.5	8	14	JCE4.0
	5×60°	12	43.5	32.5	5.5	10	16	JCE5.0
	6×60°	16	48.5	34.5	6.5	13	20	JCE6.0
JO-CESV	4×60°	10	37.5	27.5	4.5	8	14	JVCE4.0
	5×60°	12	43.5	32.5	5.5	10	16	JVCE5.0
	6×60°	16	48.5	34.5	6.5	13	20	JVCE6.0



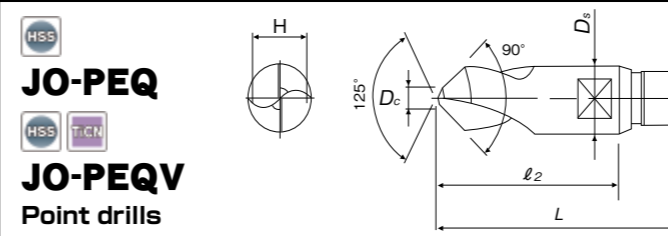
JO-CDS	Size	Shank Dia. D <sub>s</sub>	Overall length L	l <sub>2</sub>	l	H	Applicable holder Shank Dia.	Code No.
JO-CDS	4×60°	10	37.5	27.5	4.5	8	14	JCY4.0
	5×60°	12	43.5	32.5	5.5	10	16	JCY5.0
	6×60°	16	48.5	34.5	6.5	13	20	JCY6.0
JO-CDSV	4×60°	10	37.5	27.5	4.5	8	14	JVCY4.0
	5×60°	12	43.5	32.5	5.5	10	16	JVCY5.0
	6×60°	16	48.5	34.5	6.5	13	20	JVCY6.0



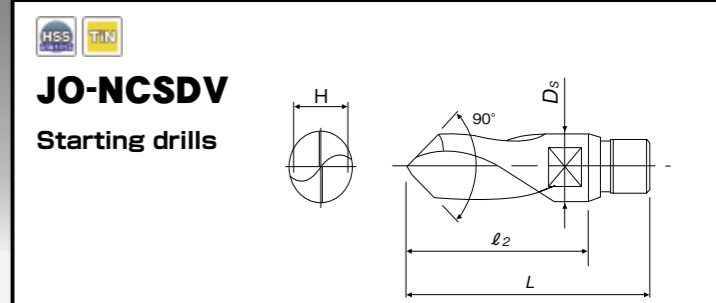
JO-CDS	Size	Shank Dia. D <sub>s</sub>	D <sub>2</sub>	Overall length L	l <sub>2</sub>	l	H	Applicable holder Shank Dia.	Code No.
JO-CDS	2 ×60°	10	5	37.5	27.5	3	8	14	JC22.0
	2.5×60°	12	6.5	43.5	32.5	3.5	10	16	JC22.5
	3 ×60°	16	8	48.5	34.5	4	13	20	JC23.0



JO-CSQM	Size	Shank Dia. D <sub>s</sub>	D <sub>c</sub>	Overall length L	l <sub>2</sub>	l	H	No. of cutting edges	Applicable holder Shank Dia.	Code No.
JO-CSQM	16×90°	10	3.2	37.5	27.5	20	8	5	14	JCS016QM9
	20×90°	12	4	43.5	32.5	24	10	5	16	JCS020QM9

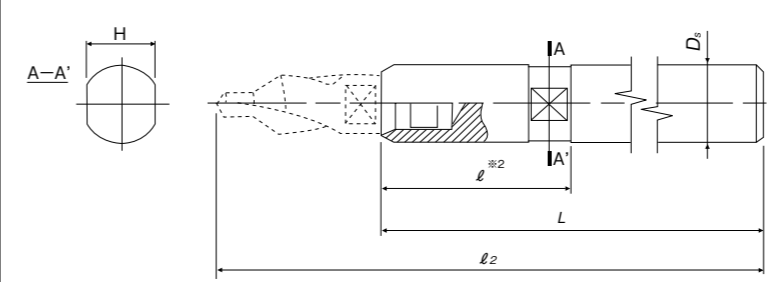


JO-PEQ	Size	Shank Dia. D <sub>s</sub>	(D <sub>c</sub> )	Overall length L	l <sub>2</sub>	H	Applicable holder Shank Dia.	Code No.
JO-PEQ	10×3	10	3	37.5	27.5	8	14	JPE010Q
	12×3.5	12	3.5	43.5	32.5	10	16	JPE012Q
	16×4	16	4	48.5	34.5	13	20	JPE016Q
JO-PEQV	10×3	10	3	37.5	27.5	8	14	JVPE010Q
	12×3.5	12	3.5	43.5	32.5	10	16	JVPE012Q
	16×4	16	4	48.5	34.5	13	20	JVPE016Q



JO-NCSDV	Size	Shank Dia. D <sub>s</sub>	Overall length L	l <sub>2</sub>	H	Applicable holder Shank Dia.	Code No.
JO-NCSDV	10×90°	10	37.5	27.5	8	14	JVCS-D010Q
	12×90°	12	43.5	32.5	10	16	JVCS-D012Q
	16×90°	16	48.5	34.5	13	20	JVCS-D016Q

## Holder



Type l <sub>2</sub>	Shank Dia. D <sub>s</sub>	Overall length L	l	H	Applicable cutting edge Shank Dia.	Code No.
150mm	14	122.5	36	12	10	JH1014M
	16	117.5	37	14	12	JH1216M
	20	115.5	41	17	16	JH1620M

Type l <sub>2</sub>	Shank Dia. D <sub>s</sub>	Overall length L	l	H	Applicable cutting edge Shank Dia.	Code No.
200mm	14	172.5	36	12	10	JH1014N
	16	167.5	37	14	12	JH1216N
	20	165.5	41	17	16	JH1620N

\*1 After connecting the cutting edge with holder, overall length will be 150mm long and 200mm long.  
 \*2 When attaching these tools to milling chucks, never hold the tools at l<sub>2</sub> portion.  
 \*3 Screw threads change depending on size. Please select the holder of adaptable shank dia.

**How to use:**  
**Refer to You Tube.**

① To avoid injuries, do not touch the cutting edge with bare hand.

Wear gloves when replacing the cutting edges.



② Use special tools to remove/replace the cutting edge.

Use spanners (JIS B4630) for removing/replacing the cutting edges.

For spanner's width size, refer to the H size (shown in back page).

Tightening torque: Take special care, otherwise excessive tightening may cause breakage on cutting edge.



[reference] Tightening torque(N-m)

Adaptable holder Shank dia	Tightening torque
14	5
16	10
20	30

③ Fix the holder firmly when removing/replacing cutting edges. Not exchange while the holder is not fixed firmly. The spanner can get loose from the tool notch and Do not remove/replace cutting edges while the holder is not firmly held in position. otherwise the spanner may get loose from the tool notch and thus can cause injury.

**Warning**

- ◆ Tool 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.

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**Our target is to reduce the energy per each tool.**

We will reduce the excessive machining toward such portions as do not affect the tool's performance and reduce energy consumption. Without affecting the tool's performance, we aim to minimize the excessive machining power and hence reduce the energy consumption.