

Selection Chart of Compression Tools (6-15 ton)

Designed to accommodate hexagonal, circular shell and indent type dies for applying compression fittings to copper, aluminum and ACSR conductors.

Category	6 ton		12 ton				15 ton
Ram Stroke (Jaw Opening)	19 to 24mm adjustable	15mm	25mm	28mm	30mm	42mm	50mm
HAND OPERATED	 CN-58A	 EP-50	 EP-410	 EP-H130	 EP-431	 EP-510C	-
REMOTE HEAD	-	 EP-50	 EP-410H	 EP-H130H	 EP-431H	 EP-510HC	 EP-610HS2
BATTERY OPERATED BOX TYPE	-	-	 REC-3410	-	 REC-3430	 REC-3510	 REC-3610 (*4)
BATTERY OPERATED STICK TYPE	-	 ECO-50	-	-	-	-	-
BATTERY OPERATED GUN TYPE	 REC-558U	 REC-551F	-	 REC-H5130	 REC-5431	 REC-5510	-
APPLICABLE DIES TYPE	-	 BEKU TYPE DIES	 U-DIES			 P-DIES	 U DIES + P-U ADAPTER (*4)
APPLICABLE COMPRESSION RANGE *	Accepts Burndy W type dies and Keaney / Blackburn O type dies	<Copper> 10 to 150mm ² <Aluminum / ACSR> 16 to 95mm ²	<Copper Conductor> upto 250mm ²			<Copper Conductor> upto 400mm ²	Accepts Burndy P dies & U dies with P-U Adapter

IZUMI Compression Tools (30-200 ton class)

Category	30ton	60ton		100ton	200ton
Power source	SINGLE ACTING			DOUBLE ACTING	
Ram Stroke	26mm	38.5mm		22mm	40mm
Tool	 EP-520C	 EP-60S	 EP-60D	 EP-100W	 EP-200W
Dies					
Compression Range	<Copper> 8mm ² to 500mm ² <Aluminum> 30mm ² to 590mm ²	up to 60mm O.D. Sleeve		<Copper> up to 64mm O.D. Sleeve <Aluminum> up to 71mm O.D. Sleeve <Steel> up to 32mm O.D. Sleeve	<Copper> up to 86mm O.D. Sleeve <Aluminum> up to 100mm O.D. Sleeve <Steel> up to 50mm O.D. Sleeve
Pump to Operate	HP-700A, FP-700A, R14E-F1, R14E-A, HPE-2A, HPE-4M, REC-P2		HPE-2D, HPE-4, HPE-4M		HPE-4, HPE-4M



COMPRESSION DIES



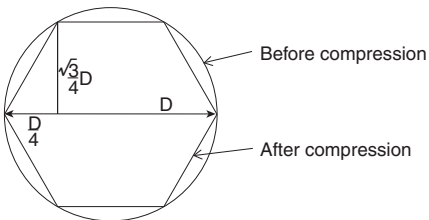
Compression dies are a critical part of compressor component since they influence electric characteristics of jointed conductors. As a compression tool manufacturer, we are also involved with die making. However, due to various standards and various fittings by each manufacturer, we do not have our own standard to meet each manufacturer's fittings. With detailed customer's information, we try our best to make suitable dies.

The following is example of information we need to make custom dies.

1. Fitting catalog number as well as conductor size.
2. Recommended die number already exists by fitting manufacturer.
3. Fitting outer diameter and inner diameter.
4. Type of conductor to be jointed.(Aluminum, Copper, ACSR, AAAC etc.)
5. Drawing of dies, groove dimension etc.

Usually fittings are compressed in an inscribed hexagon so that die across vertex distance equals to fitting outer diameter.

And compression ratio can be shown below.



D:Fitting outer diameter,
Die across vertex distance

Area before compression: $\frac{\pi}{4} D^2$

Area after compression: $\frac{3}{8} \sqrt{3} D^2$

$$\text{Compression ratio: } \frac{\frac{3}{8} \sqrt{3} D^2}{\frac{\pi}{4} D^2} = 0.827$$

However, there are many other ways of compression defined by each fitting manufacturer and some have their complete line of dies.

If cutomers wish to machine their own grooves, we are also ready to supply blank dies.

In any case dies are a very important part of compression tools.

Please be aware of suggested die number by fitting manufacturer when fittings are purchased.

Next 6 pages show the list of dies available from Izumi.

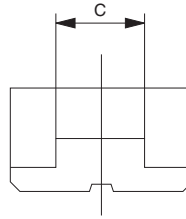
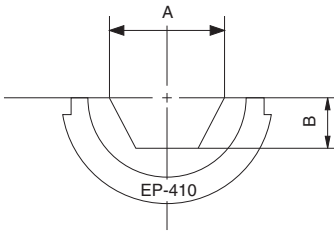
Equivalents indicated are closest equivalents and does not infer that they are identical, interchangeable or exact duplicates.

Izumi does not assume responsibility for error, omissions or subsequent changes.

WIRE GAUGE

AWG(MCM)	mm ²	JIS	DIN
30	0.05		
28	0.05		
26	0.13		
24	0.20		
22	0.32		
20	0.52		
18	0.81		0.9
16	1.32	1.5	1.5
14	2.08	2	2
12	3.33		4
10	5.27	5.5	6
8	8.30	8	10
6	13.30	14	16
5	16.78		
4	21.09	22	25
3	26.57		
2	33.94	38	35
1	42.22		
1/0	53.52	60	50
2/0	67.51		70
3/0	85.16	80	95
4/0	107.22	100	
250 MCM	126.68	125	120
300	152.01	150	150
350	177.38		185
400	202.68	200	240
500	253.35	250	
600	304.02	325	300
700	354.69		
750	380.03		
800	405.36	400	400
900	456.03		
1000	506.70	500	500

EP-410 DIES [Hexagonal Dies]



HEXAGONAL DIES FOR COPPER & ALUMINUM TERMINALS

(Suitable for DIN 46235 TERMINALS)

DIE NO.		A	B	C
K6	Cu 10	6.2	2.2	12
K8	Cu 16	8.2	3.0	12
K10	Cu 25 Al 16	9.7	3.6	12
K12	Cu 35 Al 25	11.8	4.4	14
K14	Cu 50 Al 35	13.8	5.3	14
K16	Cu 70 Al 50	15.8	6.0	14
K18	Cu 95 Al 70	18.0	7.0	14
K20	Cu 120 Al 95	19.8	7.6	14
K22	Cu 150 Al 120	22.3	8.7	13
K25	Cu 185 Al 150	24.3	9.6	12
K28	Cu 240 Al 185	27.8	11.5	11
K32	Cu 300 Al 240	31.5	13.6	9
K34	Cu 400 Al 300	33.7	14.5	7

[mm²]

[mm]



HEXAGONAL DIES

(Suitable for TERMINALS wall thickness little less than DIN 46235 terminals)

DIE NO.	A	B	C
10	5.98	2.59	12
16	7.20	3.12	12
25	8.48	3.67	12
35	10.00	4.33	14
50	11.60	5.02	14
70	13.73	5.95	14
95	15.90	6.88	14
120	17.98	7.79	14
150	20.10	8.70	13
185	22.33	9.67	12
240	25.43	11.01	11
300	28.44	12.32	9.5

[mm²]

[mm]

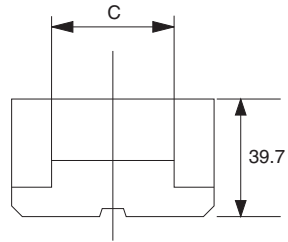
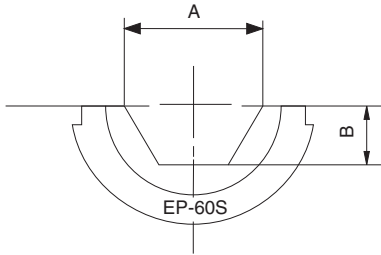
HEXAGONAL DIES FOR COPPER TERMINALS

(Suitable for TERMINALS commonly used in South Asia)

DIE NO.		A	B	C
UL-10	Cu 10	6.2	2.2	9
UL-16	Cu 16	7.1	2.6	14
UL-25	Cu 25	8.8	3.2	14
UL-35	Cu 35	10.6	3.8	14
UL-50	Cu 50	12.4	4.7	16
UL-70	Cu 70	14.6	5.7	18
UL-95	Cu 95	17.4	6.3	16
UL-120	Cu 120	19.4	7.1	14
UL-150	Cu 150	21.2	7.8	13
UL-185	Cu 185	24	8.6	12
UL-240	Cu 240	26.5	9.7	10
UL-300	Cu 300	30	11	9

[mm²]

[mm]



EP-60S DIES
ALCOA TYPE DIES (HEXAGONAL)

DIE NO.	A	B	C
10SH	15.9	6.9	32.0
12SH	19.3	8.4	23.9
14SH	22.2	9.5	25.4
16SH	25.4	10.9	16.8
18SH	28.6	12.3	15.2
20SH	31.7	13.4	19.0
75SH	10.7	4.6	35.1
76SH	12.7	5.5	28.4
20AH	31.8	13.5	59.7
24AH	38.1	16.3	49.5
27AH	42.8	18.2	43.2
30AH	47.6	20.2	57.0
34AH	54.0	23.0	46.2
36AH	57.2	24.2	44.5
74AH	20.8	8.7	62.0
75AH	25.4	10.6	62.0
76AH	30.2	12.6	61.2

EP-610HS DIES

HT61BP	P39RT equivalent
HT31BR	P40RT
HT61BU	P44RT
HT61BV	P46RT
HT61FC	P39ART
HT61HJ	P40ART
HT61FD	P44ART
HT61AC	PKR



HEXAGONAL DIES

FOR COPPER TERMINALS
Suitable Terminals wall thickness little less than
Din 46235 Terminals.

DIE NO.	Conductor size	O.D. of Lug	A	B	C
300	Cu 300	28.4	29.4	12.49	10.8
400	Cu 400	32.8	35.9	15.3	9
500	Cu 500	36.7	37.8	15.89	8.2
630	Cu 630	41.2	43.8	18.49	7.2

[mm²]

[mm]

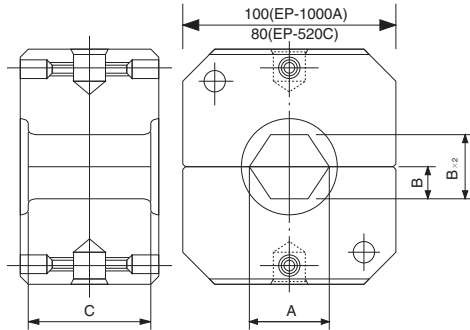


DIES FOR H TYPES

Following Dies for H-TAP use are available.

N58	EP-410	EP-610HS1
HT58G (WBG)	HT41G (UBG)	
HT58AK (WO)	HT41AK (UO)	
	HT41V (UD)	
	HT41X (UD3)	
	HT41AJ (UN)	
		HT61AC (PKR)

EP-520C DIES [Hexagonal Dies]



DIES FOR COPPER CONDUCTOR (Suitable for JIS C2804 Terminals)

Tool	DIE NO.	EP-520C			EP-1000A		
		A	B	C	A	B	C
EP-1000A EP-520C	1000-64				64	27.71	19
	725-850-56				56	24.26	22
	600-51				51	22.08	24
	400-500-47	47	20.35	15	47	20.35	26
	325-42	42	18.19	17	42	18.19	29
	250-38	38	16.45	19	38	16.45	32
	240-36	36	15.59	20	36	15.59	34
	180-200-32	32	13.86	22	32	13.86	38
	150-29	29	12.56	24	29	12.56	42
	110-125-26	26	11.26	27	26	11.26	47
	75-100-23	23	9.96	31	23	9.96	53
	45-70-19	19	8.23	37	19	8.23	60
	22-38-14	14	6.06	42	14	6.06	60
	8-14-12	12	5.20	25	12	5.20	25

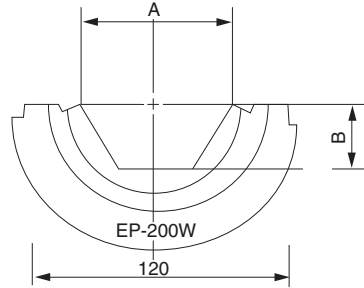
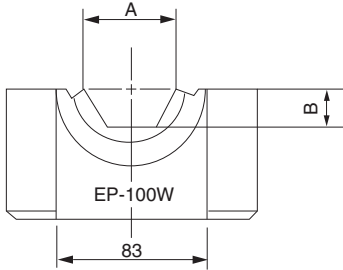
DIES FOR ALUMINUM CONDUCTOR (Suitable for JIS C2804 Terminals)

Tool	DIE NO.	EP-520C			EP-1000A		
		A	B	C	A	B	C
EP-1000A EP-520C	980-1000-71				71	30.74	40
	850-65				65	28.15	45
	600-725-60				60	25.98	48
	500-590-52	52	22.52	33	52	22.52	55
	380-430-48	48	20.78	39	48	20.78	60
	400-44	44	18.55	40	44	18.55	60
	325-42	42	18.19	42	42	18.19	60
	300-38	38	15.95	42	38	15.95	60
	200-250-34	34	14.20	42	34	14.20	60
	125-180-30	30	12.50	42	30	12.50	60
	80-110-26	26	11.26	42	26	11.26	60
	45-70-22	22	9.53	42	22	9.53	60
	30,38-18	18	7.79	42	18	7.79	60
	30,38-16	16	6.93	42	16	6.93	60

DIE NO. has a following meaning.

(500-590-52 : 500-590 mm² conductor use, die across vertex distance is 52mm)

EP-100W/EP-200W DIES



FOR STEEL SLEEVES

C : Die Width

DIE NO.	A	B	C (100/200)
S8.5	8.5	3.7	50-
S10	10	4.3	45-
S12	12	5.2	40-
S16	16	6.9	40-
S18	18	7.8	35-
S20	20	8.7	35-
S22	22	9.5	35/70
S23	23	10.0	30-
S24	24	10.4	30/60
S26	26	11.3	30/60
S28	28	12.1	28/60
S30	30	12.99	25-
S32	32	13.9	25-
S44	44	19.1	-35
S50	50	21.7	-30

FOR COPPER LUGS

DIE NO.	A	B	C (100/200)
C14	14	6.1	60-
C17	17	7.4	60-
C19	19	8.2	60-
C23	23	10.0	60-
C26	26	11.3	60-
C29	29	12.6	60-
C32	32	13.9	60-
C36	36	15.6	55-
C38	38	16.5	55-
C42	42	18.2	55-
C47	47	20.4	50-
C50	50	21.7	50-
C51	51	22.0	50-
C54	54	23.4	50-
C56	56	24.3	40-
C57	57	24.7	40-
C63	63	27.3	-70
C64	64	27.7	35-
C68	68	29.4	-70
C73	73	31.6	-65
C78	78	33.8	-64
C85	85	36.8	-60
C86	86	37.23	-60

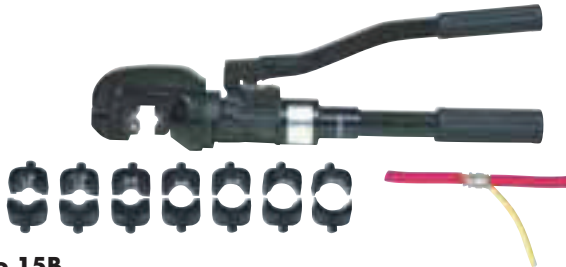
FOR ALUMINUM SLEEVES

DIE NO.	A	B	C (100/200)
A22	22	9.5	75/128
A26	26	11.3	75/128
A30	30	12.5	75/128
A34	34	14.2	75/128
A38	38	16.0	75/128
A42	42	18.2	75/128
A44	44	18.6	75/128
A48	48	20.8	75/128
A52	52	22.5	75/128
A60	60	26.0	75/128
A65	65	28.2	75/128
A68	68	29.4	75/128
A71	71	30.7	75/128
A76	76	32.9	-128
A90	90	39.0	-128
A100	100	43.3	-128



COMPRESSION TOOLS FOR TAP-OFF CONNECTORS

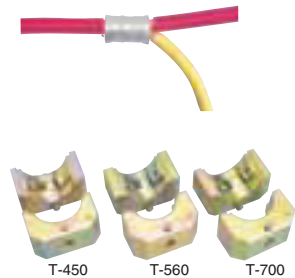
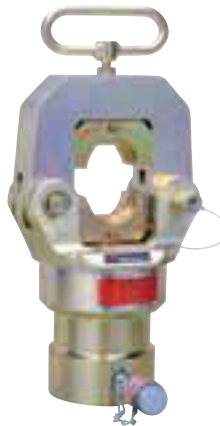
To branch conductor from main run, compress IZUMI TAP-OFF CONNECTORS (C-CONNECTORS) by IZUMI COMPRESSION TOOLS exclusively designed for TAP-OFF purpose.



No. 15B
for up to T-122



No. 16B
for up to T-365



EP-520C
for up to T-700

MODEL	TYPE	OUTPUT (kN)	WEIGHT (kgs)	LENGTH (mm)	APPLICABLE RANGE	DIES	STANDARD ACCESSORIES	REMARKS
NO.15B	Hand Hydraulic	59	3kgs	465	T-11~T-122	T-11*,T-16*,T-20,T-26,T-44 T-60,T-76,T-98,T-122	1.Plastic Case 2.Dies-7 sets(2pcs/set)	Dies for non-insulated terminals are available on request. Indenter: 8-14,22-60 Nest Dies: 8,14,22,38,60
NO.16B	Hydraulic Head	118	4.5kgs	284	T-20~T-365	T-20*,T-26*,T-44*,T-60* T-76*,T-98*,T-122*,T-154, T-190,T-240,T-288,T-365	1.Steel Case 2.Dies-5 sets(2pcs/set)	Indenter: 8-14,22-60, 70-100 Nest Dies: 8,14,22,38, 60,80,100
EP-520C	Hydraulic Head	294	17.3kgs	370	T-154~T-700	T-154*,T-190*,T-240*,T-288*, T-365*,T-450*,T-560*,T-700*	1.Steel Case Dies sold separately	

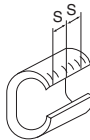
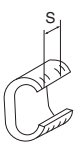
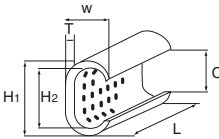
(*) Marks show OPTIONAL DIES (Available on request)

IZUMI TAP-OFF CONNECTOR (C-CONNECTOR)

The range of C-CONNECTORS are manufactured in 'C' shaped copper section for connection of main and tap copper conductors.

- Approved by NTT corporation
- Reliability is ensured by passing tests specified by JIS C 2810
- Suitable for connecting copper conductors in both indoor and outdoor such as wiring in building or wiring in tunnel
- Tin plated to avoid rusting

C-CONNECTOR SPECIFICATIONS



(T-11 ~ T-122)
except T-20, T-26, T-44

(T-154 ~ T-700)

Connector Size	Dimensions(mm)						Installation		Total sectional area of applicable wire	Per Package
	H ₁	H ₂	W	L	T	C	# of Crimps	S		
T-11	9.5	6.3	6.2	12	1.6	4.0	2	7	7.5~11mm ²	500
T-16	11.8	7.8	7.8	13	2.0	5.0	2	8	11.5~16	500
T-20	12.8	8.4	9.7	13	2.9	5.1	1	—	14~20	500
T-26	14.7	10.2	10.9	16	3.2	6.5	1	—	21~26	300
T-44	19.0	13.4	14.4	20	4.0	8.5	1	—	27~44	150
T-60	21.0	15.4	15.1	22	4.0	9.7	2	11	45~60	100
T-76	24.4	17.3	17.6	22	5.0	10.8	2	11	61~76	80
T-98	27.8	20.8	18.8	25	5.0	13.8	2	11	77~98	60
T-122	29.8	22.1	21.2	26	5.5	13.5	2	12	99~122	50
T-154	34.0	25.7	24.4	28	6.0	17.0	3	8.5	123~154	50
T-190	37.0	28.5	25.4	35	6.0	17.4	3	10.5	155~190	35
T-240	40.0	30.2	28.5	40	7.0	19.0	3	13	191~240	25
T-288	44.5	34.7	31.1	45	7.0	22.3	3	14.5	241~288	15
T-365	47.5	37.7	34.0	50	7.0	24.8	3	16	289~365	13
T-450	57.0	42.5	41.0	60	10.0	28.0	3	18.5	366~450	10
T-560	62.0	46.0	45.0	65	11.0	31.0	3	20	451~560	8
T-700	68.0	51.0	49.5	70	12.0	34.0	3	21	561~700	6



Branch connection



Parallel connection

COMBINATION CHART (Applicable range & Tool to be used)

Conductor Tap	2 (φ 1.6)	3.5 (φ 2.0)	5.5 (φ 2.6)	8mm ²	14	22	30	38	50	60	80	100	125	150	200	250	325
5.5 (φ 2.6)	11	11	11	16													
8mm ²	11	16	16	20													
14	16	20	20	26	44												
22	26	26	44	44	44	44											
30	44	44	44	44	44	60	60										
38	44	44	44	60	60	60	76	76									
50	60	60	60	00	76	76	98	98	122								
60	76	76	76	76	76	98	98	98	122	122							
80	98	98	98	98	98	122	122	122	154	154	190						
100	122	122	122	122	122	122	154	154	154	190	190	240					
125	154	154	154	154	154	154	190	190	190	190	240	240	288				
150	154	154	154	154	154	154	190	190	240	240	240	288	288	365			
200	240	240	240	240	240	240	240	240	288	288	365	365	365	365	450		
250			288	288	288	288	288	288	365	365	365	450	450	450	560	560	
325			365	365	365	365	365	365	450	450	450	450	450	560	560	700	700
400							450	450	450	560	560	560	560	560	700	700	
500							560	560	560	700	700	700	700	700	700		
600							700	700	700	700	700	700					

Figures in Table show Connector Size T-

Tooling Guide: EH-2C No.15B No.16B EP520C